

(FILE 'HOME' ENTERED AT 13:42:37 ON 03 SEP 2002)

FILE 'CAPLUS' ENTERED AT 13:42:56 ON 03 SEP 2002

L1 482669 S ?BLOCK? OR KRAYTON OR KRATON OR CLATON OR CRATON OR CRAYTON O  
L2 275984 S ?PROPYLENE? OR EPM OR EPDM  
L3 24334 S L1 AND L2  
L4 5074 S L1(5A)VINYL  
L5 1876 S L1(5A)1,2  
L6 6800 S L4 OR L5  
L7 183 S L1(5A)VINYL(5A)CONTENT?  
L8 88 S L1(5A)1,2(5A)CONTENT?  
L9 242 S L7 OR L8  
L10 79 S L2 AND L9  
L11 244368 S HYDROGENATED OR HYDROGENATION OR HYDROGENATING OR SEBS OR SEP  
L12 66 S L10 AND L11  
L13 1 S L10 AND SEPS  
L14 66 S L12 OR L13

=>

L14 ANSWER 1 OF 66 CAPLUS COPYRIGHT 2002 ACS

AN 2002:480120 CAPLUS

DN 137:34354

TI Thermoplastic elastomer compositions for slush molding, their powders, and skin materials

IN Enami, Hirohide; Ono, Takeo; Kubomoto, Kenji; Toda, Yoshihiro

PA Mitsuboshi Belting Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08L023-12

ICS B29B009-06; B29B013-00; B29C041-18; C08J003-12; C08K005-14;

C08L015-00; C08L053-00; C08L091-00; B29K021-00; B29K023-00;

B29K209-00; B29L031-58

CC 39-9 (Synthetic Elastomers and Natural Rubber)

Section cross-reference(s): 37

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2002179859	A2	20020626	JP 2000-378099	20001212
AB	The compns. [melt flow rate (MFR) .gtoreq.10 g/10 min, at 230.degree. under 2.16 kg load; JIS K7210] contain (A) 100 parts flexible <b>propylene</b> polymer compns. comprising 10-90 parts boiling heptane-sol. <b>propylene</b> polymers and 10-90 parts boiling heptane-insol. <b>propylene</b> polymers and (B) 20-50 parts <b>hydrogenated</b> styrene-butadiene rubber (SBR) or <b>hydrogenated</b> block copolymers consisting of .gtoreq.1 vinyl arom. hydrocarbon-based block (A) and .gtoreq.1 <b>hydrogenated</b> butadiene-based block (B) ( <b>hydrogenation</b> degree .gtoreq.90%) and showing vinyl arom. hydrocarbon content .gtoreq.5 and <25% and av. content of 1,2-configuration in block B of .gtoreq.62 mol%. Thus, E 2700X (flexible <b>propylene</b> polymer compn.) 45, Dynaron 2320P ( <b>hydrogenated</b> SBR) 24, EG 8407 (ethylene-octene rubber) 15, process oil 12, polyethylene 4, an org. peroxide 0.45 part, and additives were kneaded, extruded into pellets, and pulverized to give powder, which was slush-molded onto a sheet to form a skin layer showing good scratch resistance.				
ST	<b>polypropylene hydrogenated</b> SBR powder slush molding; thermoplastic elastomer <b>polypropylene</b> slush molding skin; scratch resistance skin <b>polypropylene hydrogenated</b> SBR				
IT	Polyolefin rubber RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses) (ethylene-octene, EG 8407; thermoplastic elastomer compns. for powder slush molding for scratch-resistant skin materials)				
IT	Styrene-butadiene rubber, properties RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses) ( <b>hydrogenated</b> , Dynaron 2320P, 2324P; thermoplastic elastomer compns. for powder slush molding for scratch-resistant skin materials)				
IT	Styrene-butadiene rubber, properties RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses) ( <b>hydrogenated</b> , block, triblock, Tuftec L 515, H 1052; thermoplastic elastomer compns. for powder slush molding for scratch-resistant skin materials)				
IT	Molding of plastics and rubbers (slush; thermoplastic elastomer compns. for powder slush molding for scratch-resistant skin materials)				
IT	Thermoplastic rubber RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses) (thermoplastic elastomer compns. for powder slush molding for scratch-resistant skin materials)				
IT	Polymer blends				

RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(thermoplastic elastomer compns. for powder slush molding for scratch-resistant skin materials)

IT 26221-73-8, Ethylene-octene copolymer

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(rubber; thermoplastic elastomer compns. for powder slush molding for scratch-resistant skin materials)

IT 9003-55-8

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(styrene-butadiene rubber, **hydrogenated**, Dynaron 2320P, 2324P; thermoplastic elastomer compns. for powder slush molding for scratch-resistant skin materials)

IT 9003-55-8

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(styrene-butadiene rubber, **hydrogenated**, block, triblock, Tuftec L 515, H 1052; thermoplastic elastomer compns. for powder slush molding for scratch-resistant skin materials)

IT 9002-88-4, Polyethylene 9003-07-0, E 2600 418756-61-3, E 2700X

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(thermoplastic elastomer compns. for powder slush molding for scratch-resistant skin materials)

L14 ANSWER 2 OF 66 CAPLUS COPYRIGHT 2002 ACS

AN 2001:904355 CAPLUS

DN 136:42913

TI **Polypropylene**- and polyolefin-based kink-resistant medical tubes

IN De Groot, Hendrik; Vervoort, Freddy Maria Armand

PA Kraton Polymers Research B.V., Neth.

SO PCT Int. Appl., 26 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C08L053-02

ICS C08L023-10; A61L029-14; A61L029-04

CC 63-7 (Pharmaceuticals)

Section cross-reference(s): 37

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001094466	A1	20011213	WO 2001-EP6467	20010607
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				

PRAI EP 2000-202025 A 20000607

AB Polymer-based kink resistant medical tubes, manufd. from a polymer compn., comprise a random **polypropylene** copolymer, a block copolymer comprising at least 2 vinyl arom. polymer blocks and at least one **hydrogenated** conjugated diene polymer block, wherein the **hydrogenated** conjugated diene polymer block has a **vinyl content** before **hydrogenation** of at least 50%. Thus, to 50 parts **polypropylene** and 33.3 wt. parts **hydrogenated** polybutadiene-polystyrene **block** copolymer with a **vinyl content** of 69%, 16.7 parts Primol-352 were added. The compn. had excellent transparency and kinking of the tube occurred at 10-11 cm.

ST **polypropylene** polyolefin medical tube kin resistance

IT Vinyl compounds, biological studies  
 RL: DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (aryl, polymers, block; **polypropylene-** and polyolefin-based kink-resistant medical tubes)

IT Glass transition temperature  
 (**polypropylene-** and polyolefin-based kink-resistant medical tubes)

IT Polymer blends  
 RL: DEV (Device component use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (**polypropylene-** and polyolefin-based kink-resistant medical tubes)

IT Medical goods  
 (tubes; **polypropylene-** and polyolefin-based kink-resistant medical tubes)

IT 106-99-ODP, Butadiene, block copolymers 105729-79-1DP, Isoprene-styrene block copolymer, **hydrogenated** 106107-54-4DP, Butadiene-styrene block copolymer, **hydrogenated**  
 RL: DEV (Device component use); PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (**polypropylene-** and polyolefin-based kink-resistant medical tubes)

IT 115-07-1D, **Propylene**, block copolymers 9003-07-0, **Polypropylene**  
 RL: DEV (Device component use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (**polypropylene-** and polyolefin-based kink-resistant medical tubes)

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD  
 RE

- (1) Gergen, W; US 3865776 A 1975 CAPLUS
- (2) Kuraray Co Ltd; JP 10067894 A 1998 CAPLUS
- (3) Rehau Ag & Co; DE 19719593 A 1999 CAPLUS
- (4) Wendelborn, D; EP 0623651 A 1994 CAPLUS

L14 ANSWER 3 OF 66 CAPLUS COPYRIGHT 2002 ACS  
 AN 2001:833404 CAPLUS  
 DN 135:358687

TI **Hydrogenated** block copolymer for polyolefin composition with good impact resistance and moldability  
 IN Sasagawa, Masahiro; Takayama, Shigeki; Nakajima, Shigeo  
 PA Asahi Kasei Kabushiki Kaisha, Japan  
 SO PCT Int. Appl., 46 pp.  
 CODEN: PIXXD2

DT Patent  
 LA Japanese  
 IC ICM C08F297-06  
 ICS C08L053-02; C08L023-00  
 CC 37-6 (Plastics Manufacture and Processing)  
 Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001085818	A1	20011115	WO 2001-JP3847	20010508
	W: CN, JP, KR, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR				
	EP 1225190	A1	20020724	EP 2001-926155	20010508
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR				
PRAI	JP 2000-135800	A	20000509		
	JP 2000-164668	A	20000601		
	WO 2001-JP3847	W	20010508		
AB	Title block copolymer is composed of .gtoreq.1 block of arom. vinyl				

hydrocarbons and .gtoreq.1 **block** of conjugated diene compds. [ **vinyl bond content** V = 37-70 wt% (based on conjugated diene compds.)], wherein (A) the total **hydrogenation** degree of unsatd. double bonds H (%) satisfies:  $V < H < 1.25 \cdot \text{times. } V + 10$  and  $50 \cdot \text{ltoreq. } H < 80$ ; and (B) the **hydrogenation** degree of the vinyl bonds HV is .gtoreq.82%. Thus, 80 parts of **propylene** polymer MK-711 were mixed with **hydrogenated** butadiene-styrene block copolymer (V = 50%, H = 65%, and HV = 98%) 10 and talc 10 parts, showing melt flow index 31 g/10 min, flexural modulus 1800 MPa, Izod (-30.degree.) impact strength 47 J/m, elongation at breaking 80%, and heat retention 60%.

- ST **hydrogenated** butadiene styrene block copolymer polyolefin blend  
impact resistance
- IT Paraffin oils  
RL: MOA (Modifier or additive use); USES (Uses)  
(PW 90; prepn. of **hydrogenated** block copolymer for polyolefin compn. with good impact resistance and moldability)
- IT Petroleum resins  
RL: MOA (Modifier or additive use); USES (Uses)  
(alicyclic, **hydrogenated**, Arkon M 100; prepn. of **hydrogenated** block copolymer for polyolefin compn. with good impact resistance and moldability)
- IT Petroleum resins  
RL: MOA (Modifier or additive use); USES (Uses)  
(aliph., Escorez 1310; prepn. of **hydrogenated** block copolymer for polyolefin compn. with good impact resistance and moldability)
- IT Adhesives  
Impact-resistant materials  
(prepn. of **hydrogenated** block copolymer for polyolefin compn. with good impact resistance and moldability)
- IT Molded plastics, properties  
Polymer blends  
Polyolefins  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(prepn. of **hydrogenated** block copolymer for polyolefin compn. with good impact resistance and moldability)
- IT 9002-88-4, Suntec J 301  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(Suntec J 301; prepn. of **hydrogenated** block copolymer for polyolefin compn. with good impact resistance and moldability)
- IT 106107-54-4DP, Butadiene-styrene block copolymer, **hydrogenated**  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)  
(prepn. of **hydrogenated** block copolymer for polyolefin compn. with good impact resistance and moldability)
- IT 14807-96-6, Microace P 4, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(prepn. of **hydrogenated** block copolymer for polyolefin compn. with good impact resistance and moldability)
- IT 9003-07-0, PC 600S 106565-43-9, MK 711  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(prepn. of **hydrogenated** block copolymer for polyolefin compn. with good impact resistance and moldability)

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD  
RE

- (1) Asahi Chemical Industry Co Ltd; JP 10219040 A 1998 CAPLUS
- (2) Asahi Kasei Kogyo Kabushiki Kaisha; DE 3851586 B2
- (3) Asahi Kasei Kogyo Kabushiki Kaisha; US 4994508 A CAPLUS
- (4) Asahi Kasei Kogyo Kabushiki Kaisha; JP 64020284 A
- (5) Asahi Kasei Kogyo Kabushiki Kaisha; EP 299499 A2 1989 CAPLUS

DN 135:196245  
 TI Manufacture of conjugated diene-base **block** copolymers with controlled **vinyl content** and their **hydrogenation**  
 IN Hattori, Iwakazu; Takeuchi, Toshikazu; Toyozumi, Takashi  
 PA JSR Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 11 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C08F297-02  
 ICS C08F002-38; C08F008-04  
 CC 37-3 (Plastics Manufacture and Processing)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001240636	A2	20010904	JP 2000-55154	20000301
AB	The block polymers consisting of blocks from conjugated dienes and/or blocks from conjugated dienes and vinyl arom. hydrocarbons, useful for tires, asphalt, etc., are manufd. by polymg. the monomers in the presence of org. Li catalysts, cyclic ethers contg. an O atom in a mol., and linear ethers contg. .gtoreq.2 O in a mol. in hydrocarbon solvents. Thus, styrene and 1,3-butadiene were polymd. in the presence of THF, <b>propylene glycol Et Pr ether</b> , and BuLi in cyclohexane to give a block copolymer with styrene <b>content</b> 30.1% and 1,2- <b>vinyl linkage content</b> in a butadiene <b>block</b> 81%.				
ST	conjugated diene block cyclic ether <b>hydrogenation</b> ; styrene butadiene block THF butyllithium; propanediol ethyl propyl ether diene block				
IT	Polymerization (anionic, block, living; manuf. of conjugated diene-base <b>block</b> copolymers with controlled <b>vinyl content</b> and their <b>hydrogenated</b> polymers)				
IT	Polymerization catalysts (anionic, block; manuf. of conjugated diene-base <b>block</b> copolymers with controlled <b>vinyl content</b> and their <b>hydrogenated</b> polymers)				
IT	Ethers, uses RL: CAT (Catalyst use); USES (Uses) (cyclic, controlling vinyl content with; manuf. of conjugated diene-base <b>block</b> copolymers with controlled <b>vinyl content</b> and their <b>hydrogenated</b> polymers)				
IT	Coupling agents <b>Hydrogenation</b> (manuf. of conjugated diene-base <b>block</b> copolymers with controlled <b>vinyl content</b> and their <b>hydrogenated</b> polymers)				
IT	109-99-9, THF, uses 10221-57-5, <b>Propylene glycol diethyl ether</b> 356517-92-5 RL: CAT (Catalyst use); USES (Uses) (controlling vinyl content with; manuf. of conjugated diene-base <b>block</b> copolymers with controlled <b>vinyl content</b> and their <b>hydrogenated</b> polymers)				
IT	75-54-7, Methylchlorosilane 10026-04-7, Tetrachlorosilane RL: MOA (Modifier or additive use); USES (Uses) (coupling agent; manuf. of conjugated diene-base <b>block</b> copolymers with controlled <b>vinyl content</b> and their <b>hydrogenated</b> polymers)				
IT	9003-17-2DP, Butadiene homopolymer, <b>hydrogenated</b> 106107-54-4DP, 1,3-Butadiene-styrene block copolymer, <b>hydrogenated</b> RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (manuf. of conjugated diene-base <b>block</b> copolymers with controlled <b>vinyl content</b> and their <b>hydrogenated</b> polymers)				
IT	109-72-8, Butyllithium, uses RL: CAT (Catalyst use); USES (Uses)				

(polymn. catalyst; manuf. of conjugated diene-base **block**  
copolymers with controlled **vinyl content** and their  
**hydrogenated** polymers)

L14 ANSWER 5 OF 66 CAPLUS COPYRIGHT 2002 ACS  
AN 2001:644614 CAPLUS  
DN 135:196707  
TI Thermally stable thermoplastic polymer compositions  
IN Wada, Koichi; Sasaki, Hiromitsu; Jogo, Yousuke; Takamatsu, Hideo  
PA Kuraray Co., Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 6 pp.  
CODEN: JKXXAF

DT Patent  
LA Japanese  
IC ICM C08L053-02  
ICS C08K005-01; C08L023-10  
CC 39-9 (Synthetic Elastomers and Natural Rubber)  
Section cross-reference(s): 37

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	-----	-----	-----
PI	JP 2001240721	A2	20010904	JP 2000-55711	20000301
AB	The compns. contain 100 parts <b>block</b> copolymers ( <b>vinyl</b> arom. compd. unit <b>content</b> 5-75%, Mn 250,000-400,000) contg. .gtoreq.2 blocks comprising vinyl arom. compds. and .gtoreq.1 block comprising <b>hydrogenated</b> conjugated dienes ( <b>hydrogenation</b> .gtoreq.35%), 50-300 parts nonarom. softening agents for rubbers, and 10-100 parts <b>propylene</b> polymers. Thus, <b>hydrogenated</b> styrene-isoprene/butadiene-styrene triblock copolymer 100, Diana Process PW 90 (paraffin-based process oil) 240, J 106W ( <b>polypropylene</b> ) 70, and CaCO3 200 parts were kneaded, pelletized, and injection-molded to give test pieces showing IRHD hardness 64 and compression set (120.degree., 25% deformation, 22 h) 50%.				
ST	thermoplastic elastomer styrene block <b>polypropylene</b> blend; butadiene isoprene styrene rubber <b>polypropylene</b> blend; heat stability block thermoplastic elastomer <b>polypropylene</b>				
IT	Synthetic rubber, preparation RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (butadiene-isoprene-styrene, block, triblock, <b>hydrogenated</b> ; thermally stable thermoplastic <b>hydrogenated</b> styrene-diene block elastomer- <b>polypropylene</b> blends)				
IT	Polymer blends Thermoplastic rubber RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses) (thermally stable thermoplastic <b>hydrogenated</b> styrene-diene block elastomer- <b>polypropylene</b> blends)				
IT	115-07-1D, <b>Propylene</b> , polymers 9003-07-0, J 106W 210545-45-2, B 221 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses) (thermally stable thermoplastic <b>hydrogenated</b> styrene-diene block elastomer- <b>polypropylene</b> blends)				
IT	110389-01-ODP, Butadiene-isoprene-styrene block copolymer, <b>hydrogenated</b> RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (triblock, rubber; thermally stable thermoplastic <b>hydrogenated</b> styrene-diene block elastomer- <b>polypropylene</b> blends)				

L14 ANSWER 6 OF 66 CAPLUS COPYRIGHT 2002 ACS  
AN 2001:587279 CAPLUS  
DN 135:153651  
TI Impact-resistant thermoplastic resin compositions

IN Masuda, Haruhisa; Sasaki, Shigeru  
 PA Kuraray Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 14 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C08L069-00  
 ICS C08L023-00; C08L053-00; C08L067-02; C08G081-02  
 CC 37-6 (Plastics Manufacture and Processing)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001220506	A2	20010814	JP 2000-32210	20000209
AB	<p>The compns. comprise (A) polycarbonates, (B) polyesters, (C) polyolefins, (D) block polymers comprising polycarbonate blocks and addn. polymer blocks, and (E) OH-terminated addn. block copolymers selected from polymers comprising arom. vinyl polymer blocks and/or <b>hydrogenated</b> polybutadiene (I) <b>blocks</b> (1,2-configuration <b>content</b> &lt;30%) and <b>hydrogenated</b> polyisoprene <b>blocks</b> and/or <b>hydrogenated</b> I <b>blocks</b> (1,2-configuration <b>content</b> 30-80%) and/or <b>hydrogenated</b> isoprene-butadiene copolymer blocks and polymers comprising arom. vinyl polymer blocks and polyisobutylene blocks, wherein the wt. ratio of A/B is 99/1 to 1/99, that of (A + B)/C is 100/0 to 50/50, that of (A + B)/D is 99.95/0.05 to 50/50, and that of (A + B)/E is 100/0 to 50/50. Thus, a compn. comprising a polycarbonate (Panlite L 1225) 75, PBT (Hauzer S 1000F) 25, ethylene-<b>propylene</b> rubber (Esprene V 0115) 10, and a block polymer manufd. from a polycarbonate (Panlite L 1250) and OH-terminated <b>hydrogenated</b> butadiene-isoprene-styrene block copolymer 5 parts was injection-molded to give a test piece showing notched Izod impact strength at 23.degree. and -30.degree., 76 and 42 kJ/m2, resp., tensile yield strength 51 MPa, elongation at break 154%, flexural modulus 2.1 GPa, and good chem. resistance.</p>				
ST	<p>polycarbonate polyester polyolefin impact resistance; butadiene isoprene styrene polycarbonate block blend; PBT ethylene <b>propylene</b> rubber polycarbonate blend</p>				
IT	<p>Ethylene-<b>propylene</b> rubber          RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)          (Esprene V 0115; impact-resistant polycarbonate-polyester-polyolefin blends)</p>				
IT	<p>Polycarbonates, preparation          RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)          (block; impact-resistant polycarbonate-polyester-polyolefin blends)</p>				
IT	<p>Polyolefin rubber          RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)          (ethylene-octene, Engage EG 8200; impact-resistant polycarbonate-polyester-polyolefin blends)</p>				
IT	<p>Chemically resistant materials          Impact-resistant materials          (impact-resistant polycarbonate-polyester-polyolefin blends)</p>				
IT	<p>Polyesters, properties          Polyolefins          RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)          (impact-resistant polycarbonate-polyester-polyolefin blends)</p>				
IT	<p>Polymer blends          RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)          (impact-resistant polycarbonate-polyester-polyolefin blends)</p>				
IT	<p>9010-79-1          RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)          (ethylene-<b>propylene</b> rubber, Esprene V 0115; impact-resistant</p>				



polycarbonate-polyester-polyolefin blends)  
 IT 24936-68-3DP, Panlite L 1225, reaction products with **hydrogenated**  
 OH-terminated butadiene-isoprene-styrene block polymer 25037-45-ODP,  
 reaction products with **hydrogenated** OH-terminated  
 butadiene-isoprene-styrene block polymer 110389-01-ODP,  
 1,3-Butadiene-isoprene-styrene block copolymer, **hydrogenated**,  
 OH-terminated, reaction products with polycarbonates  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP  
 (Properties); TEM (Technical or engineered material use); PREP  
 (Preparation); USES (Uses)  
 (impact-resistant polycarbonate-polyester-polyolefin blends)  
 IT 24968-12-5, Hauzer S 1000F 26062-94-2 110389-01-OD,  
 1,3-Butadiene-isoprene-styrene block copolymer, **hydrogenated**  
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or  
 engineered material use); USES (Uses)  
 (impact-resistant polycarbonate-polyester-polyolefin blends)  
 IT 26221-73-8, Ethylene-octene copolymer  
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or  
 engineered material use); USES (Uses)  
 (rubber; impact-resistant polycarbonate-polyester-polyolefin blends)

L14 ANSWER 7 OF 66 CAPLUS COPYRIGHT 2002 ACS

AN 2001:555234 CAPLUS

DN 135:123375

TI Styrene polymer-polyolefin thermoplastic compositions with good  
 compatibility and delamination prevention

IN Toyoda, Nobuyuki; Okamoto, Takahiro; Isobe, Isamu

PA JSR Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08L025-04

ICS C08L023-00; C08L023-10; C08L053-02

CC 37-6 (Plastics Manufacture and Processing)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001207001	A2	20010731	JP 2000-349772	20001116
PRAI	JP 1999-326123	A	19991116		

AB The comps. comprise (A) 5-95% styrene polymers, (B) 5-95% polyolefins,  
 and (C) 1-50 parts (based on 100 parts A + B) **hydrogenated** block  
 polymers (C-C double bond **hydrogenation** .gtoreq.80%; arom.  
**vinyl content** 35-70%) comprising polymer **blocks**  
 having >50% arom. **vinyl** monomer units and conjugated diene  
 polymer **blocks** [content (Cv) of 1,2  
 - and/or 3,4-vinyl linkage 60-85%]. Thus, a compn. comprising a styrene  
 polymer (H 554) 70, a **propylene** polymer (J 705) 30, and  
**hydrogenated** 60:40 (%) styrene-1,3-butadiene block copolymer (  
**hydrogenation** 98%; Cv 65%) 5 parts was injection-molded to give a  
 test piece showing rigidity 1740 MPa, impact strength 6.4 kg-cm/cm,  
 elongation at break 26.1%, and good solvent resistance.  
 ST styrene polymer polyolefin blend impact resistance; compatibilizer  
**hydrogenation** styrene butadiene block polymer; **propylene**  
 styrene polymer compatibility delamination prevention  
 IT Impact-resistant materials  
 Polymer blend compatibilizers  
 Solvent-resistant materials  
 (styrene polymer-polyolefin thermoplastic compns. with good  
 compatibility and delamination prevention)  
 IT Polyolefins  
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or  
 engineered material use); USES (Uses)  
 (styrene polymer-polyolefin thermoplastic compns. with good  
 compatibility and delamination prevention)  
 IT Polymer blends  
 RL: PRP (Properties); TEM (Technical or engineered material use); USES

(Uses)

(styrene polymer-polyolefin thermoplastic compns. with good compatibility and delamination prevention)

IT 105729-79-1DP, Isoprene-styrene block copolymer, **hydrogenated**  
106107-54-4DP, 1,3-Butadiene-styrene block copolymer, **hydrogenated**  
RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(compatibilizer; styrene polymer-polyolefin thermoplastic compns. with good compatibility and delamination prevention)

IT 100-42-5D, Styrene, polymers 106565-43-9, J 705 234781-30-7, H 554  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(styrene polymer-polyolefin thermoplastic compns. with good compatibility and delamination prevention)

L14 ANSWER 8 OF 66 CAPLUS COPYRIGHT 2002 ACS

AN 2001:541720 CAPLUS

DN 135:123801

TI Nonwoven fabrics with good stretchability and softness comprising fibers comprising **hydrogenated** conjugated diene block copolymers and polyolefins

IN Nakajima, Hiroki

PA JSR Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM D04H001-42

ICS D04H003-16; D01F006-28

CC 40-2 (Textiles and Fibers)

Section cross-reference(s): 52, 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001200457	A2	20010727	JP 2000-9187	20000118
AB	The nonwoven fabrics comprise fibers spun from compns. contg. <b>hydrogenated</b> conjugated diene block copolymers (A) consisting of <b>blocks</b> of polybutadiene having <b>vinyl</b> bond <b>content</b> .ltoreq.30%, and <b>blocks</b> of (i) conjugated diene polymers having <b>vinyl</b> bond <b>content</b> >30% or (ii) <b>blocks</b> of random copolymers of conjugated dienes comprising <50% arom. vinyl compds. and having vinyl bond content of conjugated diene component >30% and arom. vinyl compds. and having amt. of satn. of double bond of the conjugated dienes .gtoreq.80%, or the nonwoven fabrics comprise fibers spun from compns. comprising A and .ltoreq.99% polyolefin-type polymers. The nonwoven fabrics are useful for air filters, filters for blood, battery separators, disposable clothings, and wipers. A compn. comprising 75 parts <b>hydrogenated</b> butadiene-styrene block copolymer with degree of <b>hydrogenation</b> 98% and 25 parts LDPE (LJ 900N) was melt spun by the melt blowing method to give a nonwoven fabric exhibiting elongation 520 and 500%, resp., in the machine and transverse directions and stress at stretch 10% 1.5 and 1.0 g/cm-g/cm2, resp., in the machine and transverse directions.				
ST	butadiene styrene block copolymer polyolefin blend fiber nonwoven stretchability; LDPE butadiene styrene block copolymer blend fiber nonwoven stretchability; polyethylene butadiene styrene block copolymer blend fiber nonwoven stretchability; filter butadiene styrene block copolymer polyolefin blend fiber nonwoven; blood filter butadiene styrene copolymer polyolefin blend fiber nonwoven; battery separator butadiene styrene copolymer polyolefin blend fiber nonwoven; disposable clothing butadiene styrene copolymer polyolefin blend fiber nonwoven; wiping cloth butadiene styrene copolymer polyolefin blend fiber nonwoven				
IT	Polymer blends RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses) (blends with <b>hydrogenated</b> butadiene-styrene block copolymers				

with polyolefins, fiber; nonwoven fabrics with good stretchability and softness comprising fibers comprising **hydrogenated** conjugated diene block copolymers and polyolefins)

IT Synthetic polymeric fibers, uses  
 RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
 (blends with **hydrogenated** butadiene-styrene block copolymers with polyolefins; nonwoven fabrics with good stretchability and softness comprising fibers comprising **hydrogenated** conjugated diene block copolymers and polyolefins)

IT Polyolefins  
 RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
 (blends with **hydrogenated** butadiene-styrene block copolymers, fiber; nonwoven fabrics with good stretchability and softness comprising fibers comprising **hydrogenated** conjugated diene block copolymers and polyolefins)

IT Clothing  
 (disposable; nonwoven fabrics with good stretchability and softness comprising fibers comprising **hydrogenated** conjugated diene block copolymers and polyolefins for)

IT Polyolefin rubber  
 RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
 (ethylene-octene, Engage 8402, blends with **hydrogenated** butadiene-styrene block copolymers, fiber; nonwoven fabrics with good stretchability and softness comprising fibers comprising **hydrogenated** conjugated diene block copolymers and polyolefins)

IT Blood  
 (filters for; nonwoven fabrics with good stretchability and softness comprising fibers comprising **hydrogenated** conjugated diene block copolymers and polyolefins for)

IT Styrene-butadiene rubber, uses  
 RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
 (**hydrogenated**, block, blends with polyolefins, fiber; nonwoven fabrics with good stretchability and softness comprising fibers comprising **hydrogenated** conjugated diene block copolymers and polyolefins)

IT Nonwoven fabrics  
 (nonwoven fabrics with good stretchability and softness comprising fibers comprising **hydrogenated** conjugated diene block copolymers and polyolefins)

IT Air filters  
 Primary battery separators  
 Secondary battery separators  
 (nonwoven fabrics with good stretchability and softness comprising fibers comprising **hydrogenated** conjugated diene block copolymers and polyolefins for)

IT Household furnishings  
 (wiping cloths; nonwoven fabrics with good stretchability and softness comprising fibers comprising **hydrogenated** conjugated diene block copolymers and polyolefins for)

IT 9002-88-4, LJ 900N 9010-79-1, Ethylene-**propylene** copolymer  
 26221-73-8, Ethylene-1-octene copolymer  
 RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
 (blends with **hydrogenated** butadiene-styrene block copolymers, fiber; nonwoven fabrics with good stretchability and softness comprising fibers comprising **hydrogenated** conjugated diene block copolymers and polyolefins)

IT 9003-55-8  
 RL: PEP (Physical, engineering or chemical process); POF (Polymer in

formulation); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(styrene-butadiene rubber, **hydrogenated**, block, blends with polyolefins, fiber; nonwoven fabrics with good stretchability and softness comprising fibers comprising **hydrogenated** conjugated diene block copolymers and polyolefins)

L14 ANSWER 9 OF 66 CAPLUS COPYRIGHT 2002 ACS

AN 2001:472833 CAPLUS

DN 135:62156

TI Heat- and oil-resistant thermoplastic resin composition with excellent tensile elongation

IN Suzuki, Katsumi; Hoshina, Toshikazu

PA Asahi Kasei Kabushiki Kaisha, Japan

SO PCT Int. Appl., 22 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

IC ICM C08L025-04

ICS C08L023-10; C08L053-02

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2001046316	A1	20010628	WO 2000-JP1742	20000322
	W: JP, KR, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	JP 2001240713	A2	20010904	JP 2000-151066	20000523
PRAI	JP 1999-362413	A	19991221		
AB	Title compn. comprises (A) a styrene resin, (B) a <b>propylene</b> resin, and (C) a block copolymer composed of .gtoreq.2 polystyrene blocks X and .gtoreq.1 polybutadiene block Y of 1,2-bonding 30-80 wt% in which .gtoreq.70% of the double bonds have been <b>hydrogenated</b> , wherein the wt. ratio of A:B = 95:5 - 5:95 and C:(A + B) = 2-30:100; and C has styrene content 40-80 wt% and .gtoreq.50% of C resides at the A/B interface. Thus, 6 parts of a <b>hydrogenated</b> X-Y-X <b>triblock</b> copolymer (styrene <b>content</b> = 67%, butadiene 1,2-bonding <b>content</b> = 40%; X- <b>block</b> mol. wt. = 15,000 and Y-block mol. wt. = 15,000; <b>hydrogenation</b> rate of Y = 97%) were added to a blend of impact-resistant styrene resin SR-500 70 and <b>propylene</b> block copolymer K-7019 30 parts, to give a compn. showing elongation at breaking 120%, heat distortion temp. 107.degree., flexural modulus 17800 kgf/cm2, and oil resistance 105.degree..				
ST	<b>hydrogenated</b> styrene butadiene block copolymer polystyrene <b>polypropylene</b> thermoplastic blend				
IT	Heat-resistant materials Impact-resistant materials Oil-resistant materials Polymer blend compatibilizers Polymer morphology (prepn. of heat- and oil-resistant thermoplastic resin with excellent tensile elongation)				
IT	Polymer blends RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses) (prepn. of heat- and oil-resistant thermoplastic resin with excellent tensile elongation)				
IT	Plastics, properties RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses) (thermoplastics; prepn. of heat- and oil-resistant thermoplastic resin with excellent tensile elongation)				
IT	100-42-5D, Styrene, polymers RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or				

engineered material use); USES (Uses)

(impact-resistant; prepn. of heat- and oil-resistant thermoplastic resin with excellent tensile elongation)

IT 106107-54-4DP, Butadiene-styrene block copolymer, **hydrogenated**  
RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); PREP (Preparation); USES (Uses)  
(prepn. of heat- and oil-resistant thermoplastic resin with excellent tensile elongation)

IT 9003-53-6, G 9305 9003-56-9 106565-43-9 211366-18-6, Dicstyrene SR 500

RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)

(prepn. of heat- and oil-resistant thermoplastic resin with excellent tensile elongation)

RE.CNT 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD  
RE

- (1) Daicel Chemical Industries Ltd; JP 06192502 A 1994 CAPLUS
- (2) General Electric Company; FR 2403361 A
- (3) General Electric Company; DE 2839357 A CAPLUS
- (4) General Electric Company; JP 5453159 A
- (5) General Electric Company; GB 2003891 A 1979 CAPLUS
- (6) Shell Internationale Research; US 4188432 A CAPLUS
- (7) Shell Internationale Research; JP 6212812 B2
- (8) Shell Internationale Research; EP 4685 A2 1979 CAPLUS
- (9) The Dow Chemical Company; JP 07502556 A
- (10) The Dow Chemical Company; US 5334657 A CAPLUS
- (11) The Dow Chemical Company; EP 617719 A1 CAPLUS
- (12) The Dow Chemical Company; WO 9313168 A1 1993 CAPLUS
- (13) Tonen Corporation; JP 445140 A 1992

L14 ANSWER 10 OF 66 CAPLUS COPYRIGHT 2002 ACS

AN 2001:453132 CAPLUS

DN 135:47057

TI Multi-component articles prepared from **hydrogenated** block copolymers

IN Parsons, Gary D.; Maher, James P.

PA Dow Chemical Company, USA

SO PCT Int. Appl., 23 pp.

CODEN: PIXXD2

DT Patent

LA English

IC ICM C08F008-04

ICS C08L053-02

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 38

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001044315	A1	20010621	WO 2000-US31972	20001121
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6416875	B1	20020709	US 2000-717865	20001121
PRAI US 1999-170892P	P	19991215		

AB Present invention is directed to a multi-component article which comprises at least two components, each component being produced from a different polymer compn., and at least one polymer compn. comprises a **hydrogenated** block copolymer comprising at least two distinct blocks of **hydrogenated** vinyl arom. polymer, and at least one block of **hydrogenated** conjugated diene polymer, characterized by: a **hydrogenation** level such that each **hydrogenated**

vinyl arom. polymer block has a **hydrogenation** level >90% and the **hydrogenated** conjugated diene polymer block has a **hydrogenation** level >95%, with the proviso that when at least one component is prepd. from compns. comprising **hydrogenated** block copolymers, each compn. differs compositionally such that the vinyl arom. polymer **block content** of the compns. differs by .gtoreq.20%.

ST **hydrogenated** vinylarom conjugated diene block copolymer article  
IT Synthetic rubber, uses

RL: TEM (Technical or engineered material use); USES (Uses)  
(conjugated diene-vinylarom. compd., **hydrogenated**, block;  
multi-component articles prepd. from **hydrogenated** block  
copolymers)

IT Automobiles  
(instrument panels; multi-component articles prepd. from  
**hydrogenated** block copolymers)

IT Polyolefins  
RL: TEM (Technical or engineered material use); USES (Uses)  
(multi-component articles prepd. from **hydrogenated** block  
copolymers)

IT 9003-07-0, **Polypropylene**  
RL: TEM (Technical or engineered material use); USES (Uses)  
(multi-component articles prepd. from **hydrogenated** block  
copolymers)

RE.CNT 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD

- RE  
(1) de La Mare, H; US 3670054 A 1972 CAPLUS  
(2) Enichem Elastomeri S P A; GB 2225330 A 1990 CAPLUS  
(3) Gehlsen, M; MACROMOLECULES 1993, V26(16), P4122 CAPLUS  
(4) Kimberly-Clark Corporation; GB 2178433 A 1987 CAPLUS  
(5) Mitsubishi Kasei Corporation; EP 0505110 A 1992 CAPLUS  
(6) Shell Internationale Research Maatschappij B V; EP 0733677 A 1996 CAPLUS  
(7) Shell Internationale Research Maatschappij N V; BE 660829 A 1965 CAPLUS  
(8) Toyota Jidosha Kabushiki Kaisha; EP 0697435 A 1996 CAPLUS

L14 ANSWER 11 OF 66 CAPLUS COPYRIGHT 2002 ACS

AN 2001:369756 CAPLUS

DN 134:367733

TI Thermoplastic elastomer compositions and polyolefin-styrene polymer  
compositions containing them with excellent compatibility

IN Okamoto, Takahiro

PA JSR Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08L053-02

ICS C08L023-00; C08L025-04

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 39

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001139763	A2	20010522	JP 1999-326124	19991116

AB The thermoplastic elastomer compns. contain block copolymers (A) having  
structures (PQ)nP or (PQ)m (P = arom. vinyl polymer block; Q = conjugated  
diene polymer block; m, n .gtoreq.1) and **hydrogenated** block  
copolymers (B, **hydrogenation** degree .gtoreq.80%) having arom.  
polymer blocks, conjugated diene polymer blocks or arom. vinyl-conjugated  
diene random copolymer **blocks**, and butadiene polymer  
**blocks** with 1,2-vinyl bond

**content** <30%, where the wt. ratio of A/B = 10/90-90/10 and content  
of arom. vinyl units in A and B = 10-70% on the total wt. Thus, a  
2.5:2.5:70:30 mixt. of JSR-TR 2250 (SBS block copolymer),  
**hydrogenated** 1,3-butadiene-styrene block copolymer, H 554

(polystyrene), and J 705 (**polypropylene**) was molded into a test  
piece showing Izod impact strength 6.4 kg-cm/cm, elongation 25.6 %, and

good resistance to PhMe.

ST impact resistance polystyrene polyolefin blend; thermoplastic elastomer compatibilizer polystyrene **polypropylene** blend; chem resistance styrene butadiene block copolymer

IT Styrene-butadiene rubber, uses  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (block, triblock, TR 2827, **hydrogenated** block copolymer blends, thermoplastic; polyolefin-styrene polymer blends contg. thermoplastic elastomer compns. with good chem. and impact resistance)

IT Impact-resistant materials  
 (chem. resistant; polyolefin-styrene polymer blends contg. thermoplastic elastomer compns. with good chem. and impact resistance)

IT Chemically resistant materials  
 (impact-resistant; polyolefin-styrene polymer blends contg. thermoplastic elastomer compns. with good chem. and impact resistance)

IT Polymer blend compatibilizers  
 (polyolefin-styrene polymer blends contg. thermoplastic elastomer compns. with good chem. and impact resistance)

IT Thermoplastic rubber  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (polyolefin-styrene polymer blends contg. thermoplastic elastomer compns. with good chem. and impact resistance)

IT Polyolefins  
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
 (polyolefin-styrene polymer blends contg. thermoplastic elastomer compns. with good chem. and impact resistance)

IT Polymer blends  
 RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
 (polyolefin-styrene polymer blends contg. thermoplastic elastomer compns. with good chem. and impact resistance)

IT 106107-54-4, JSR-TR 2250  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (**hydrogenated** block copolymer blends, thermoplastic; polyolefin-styrene polymer blends contg. thermoplastic elastomer compns. with good chem. and impact resistance)

IT 106565-43-9, J 705 234781-30-7, H 554  
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
 (polyolefin-styrene polymer blends contg. thermoplastic elastomer compns. with good chem. and impact resistance)

IT 106107-54-4D, 1,3-Butadiene-styrene block copolymer, **hydrogenated**  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (styrene-butadiene block copolymer blends, thermoplastic rubber; polyolefin-styrene polymer blends contg. thermoplastic elastomer compns. with good chem. and impact resistance)

IT 106107-54-4  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (styrene-butadiene rubber, block, triblock, TR 2827, **hydrogenated** block copolymer blends, thermoplastic; polyolefin-styrene polymer blends contg. thermoplastic elastomer compns. with good chem. and impact resistance)

L14 ANSWER 12 OF 66 CAPLUS COPYRIGHT 2002 ACS  
 AN 2001:192073 CAPLUS  
 DN 134:238694  
 TI Olefin elastomer compositions for rolls with good abrasion resistance  
 IN Koide, Toshiyuki; Oka, Katsumi; Shimakage, Masashi  
 PA JSR Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 6 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C08L023-08  
 ICS C08L023-16; C08L053-02; F16C013-00  
 CC 39-9 (Synthetic Elastomers and Natural Rubber)

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2001072809	A2	20010321	JP 1999-252695	19990907
AB	The compns., useful for rolls of copiers, printers, etc, contain 20-95% ethylene-.alpha.-olefin rubbers and 5-80% arom. vinyl compd.-conjugated diene block copolymers contg. .gtoreq.50% vinyl bonds in conjugated diene components. Thus, a compn. contg. 90% JSR-EP 504E (ethylene-5-ethylidene-2-norbornene- <b>propylene</b> rubber) and Hybrar HVS 3 (styrene-isoprene-styrene <b>block</b> rubber, <b>vinyl</b> bond <b>content</b> 55%) was vulcanized to give a sheet with compression set (JIS K 6262) 18%.				
ST	olefin elastomer printing roll abrasion resistance; ethylene ethylidene norbornene <b>propylene</b> rubber roll; styrene isoprene block <b>EPDM</b> rubber roll				
IT	<b>EPDM</b> rubber RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses) (ethylene-ethylidenenorbornene-propene, JSR-EP 504E, vulcanized; olefin elastomer compns. for rolls with good abrasion resistance)				
IT	Styrene-butadiene rubber, properties RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses) ( <b>hydrogenated</b> , Dynaron 1320P, vulcanized; olefin elastomer compns. for rolls with good abrasion resistance)				
IT	Isoprene-styrene rubber RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses) ( <b>hydrogenated</b> , block, triblock, Hybrar HVS 3, vulcanized; olefin elastomer compns. for rolls with good abrasion resistance)				
IT	Styrene-butadiene rubber, properties RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses) ( <b>hydrogenated</b> , block, triblock, vulcanized; olefin elastomer compns. for rolls with good abrasion resistance)				
IT	Abrasion-resistant materials Electrophotographic apparatus Printing rolls (olefin elastomer compns. for rolls with good abrasion resistance)				
IT	Polyolefin rubber RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses) (vulcanized; olefin elastomer compns. for rolls with good abrasion resistance)				
IT	25038-32-8 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses) (isoprene-styrene rubber, <b>hydrogenated</b> , block, triblock, Hybrar HVS 3, vulcanized; olefin elastomer compns. for rolls with good abrasion resistance)				
IT	25038-36-2, Ethylene-5-ethylidene-2-norbornene- <b>propylene</b> copolymer RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses) (rubber, vulcanized; olefin elastomer compns. for rolls with good abrasion resistance)				
IT	9003-55-8 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses) (styrene-butadiene rubber, <b>hydrogenated</b> , Dynaron 1320P, vulcanized; olefin elastomer compns. for rolls with good abrasion resistance)				
IT	9003-55-8 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses) (styrene-butadiene rubber, <b>hydrogenated</b> , block, triblock, vulcanized; olefin elastomer compns. for rolls with good abrasion				



resistance)

L14 ANSWER 13 OF 66 CAPLUS COPYRIGHT 2002 ACS

AN 2000:819225 CAPLUS

DN 133:363675

TI Process oil-free thermoplastic elastomer compositions for food and medical use with good flexibility

IN Sugisaki, Atsushi; Shibahara, Sumio

PA Sumitomo Bakelite Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08L053-02

ICS C08L023-10; C08L083-04

CC 39-9 (Synthetic Elastomers and Natural Rubber)

Section cross-reference(s): 17, 63

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
	-----	---	-----	-----	-----
PI	JP 2000319485	A2	20001121	JP 1999-129756	19990511
AB	The compns., useful for food packaging materials and medical goods, comprise (A) 100 parts <b>propylene</b> polymers, (B) 100-900 parts .gtoreq.1 <b>hydrogenated</b> diene copolymers selected from (a) <b>hydrogenated</b> block copolymers having styrene (deriv.) polymer blocks and isoprene or isoprene-butadiene polymer <b>blocks</b> with 1,2- and 3,4-configuration isoprene <b>content</b> .gtoreq.40%, (b) <b>hydrogenated</b> styrene (deriv.)-butadiene <b>block</b> copolymers with 1,2-configuration butadiene <b>content</b> .gtoreq.60% and the ratio of styrene to butadiene (5-40):(60-95), and (c) arom. vinyl compd.-conjugated diene copolymers with <b>hydrogenated</b> diene content .gtoreq.80% and the ratio of arom. vinyl compd. to conjugated diene (5-60):(40-95), and (C) 1-100 parts silicone oils with viscosity (JIS Z 8803, at 25.degree.) .gtoreq.50,000 cSt. Thus, a test piece composed of JS-G ( <b>polypropylene</b> ) 100, Dynaron 1320P ( <b>hydrogenated</b> SBR, styrene content 10%) 300, and BY 27-001 (silicone oil) 20 parts showed tensile strength (JIS K 6301) 10.6 MPa, elongation 1150%, and good appearance and abrasion resistance.				
ST	thermoplastic elastomer flexible moldability abrasion resistance; styrene <b>hydrogenated</b> butadiene isoprene block rubber; <b>SEPS</b> <b>hydrogenated</b> SBR silicone oil <b>polypropylene</b> medical; food packaging process oil free thermoplastic elastomer				
IT	Isoprene-styrene rubber RL: FFD (Food or feed use); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (block, triblock, Hybrar 7125; process oil-free thermoplastic elastomer compns. for food and medical use with good flexibility)				
IT	Styrene-butadiene rubber, properties RL: FFD (Food or feed use); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); USES (Uses) ( <b>hydrogenated</b> , Dynaron 1320P; process oil-free thermoplastic elastomer compns. for food and medical use with good flexibility)				
IT	Abrasion-resistant materials Food packaging materials Medical goods (process oil-free thermoplastic elastomer compns. for food and medical use with good flexibility)				
IT	Thermoplastic rubber RL: FFD (Food or feed use); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (process oil-free thermoplastic elastomer compns. for food and medical use with good flexibility)				
IT	Polymer blends				

RL: FFD (Food or feed use); PRP (Properties); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(process oil-free thermoplastic elastomer compns. for food and medical use with good flexibility)

IT Polysiloxanes, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(process oil-free thermoplastic elastomer compns. for food and medical use with good flexibility)

IT 105729-79-1  
RL: FFD (Food or feed use); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(isoprene-styrene rubber, block, triblock, Hybrar 7125; process oil-free thermoplastic elastomer compns. for food and medical use with good flexibility)

IT 25085-53-4, JS-G 25895-47-0, XF 7700  
RL: FFD (Food or feed use); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(process oil-free thermoplastic elastomer compns. for food and medical use with good flexibility)

IT 263759-63-3, BY 27-001  
RL: MOA (Modifier or additive use); USES (Uses)  
(process oil-free thermoplastic elastomer compns. for food and medical use with good flexibility)

IT 9003-55-8  
RL: FFD (Food or feed use); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(styrene-butadiene rubber, **hydrogenated**, Dynaron 1320P; process oil-free thermoplastic elastomer compns. for food and medical use with good flexibility)

L14 ANSWER 14 OF 66 CAPLUS COPYRIGHT 2002 ACS

AN 2000:540979 CAPLUS

DN 133:151865

TI Automotive shift-lever knob made of halogen-free thermoplastic elastomer compositions with good abrasion and oil resistances

IN Okuda, Ryoichi

PA Sumitomo Bakelite Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08L053-02

ICS B60K020-02; C08L023-00; C08L023-16; C08L053-02; C08L083-04

CC 39-15 (Synthetic Elastomers and Natural Rubber)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2000219795	A2	20000808	JP 1999-21062	19990129
AB	<p>The shift-lever knob is made of thermoplastic elastomer compns. comprising (A) 100 parts block copolymers having .gtoreq.2 arom. vinyl monomer-based blocks and .gtoreq.1 conjugated diene monomer-based <b>blocks</b> with arom. <b>vinyl</b> compd. <b>content</b> 5-70% and <b>hydrogenation</b> degree (HD) of the conjugated diene units .gtoreq.70%, (B) 50-170 parts polyolefins with melt-flow ratio (MFR; ASTM-D 1238L at 230.degree.) 1-40 g/10-min, (C) 100-300 parts softeners for nonarom. rubbers, (D) 50-170 parts thermoplastic elastomer compns. contg. (partially) crosslinked ethylene-C3-12 .alpha.-olefin copolymers with d. 0.858-0.915 g/cm3 and Mw/Mn &lt;3.0, which may be prepd. in the presence of metallocene catalysts, and cryst. polyolefins, and (E) 5-50 parts silicone oils with viscosity (JIS Z 8803 at 25.degree.) .gtoreq.5000 cSt. Thus, a compn. contg. <b>hydrogenated</b> styrene-isoprene-styrene triblock copolymer (styrene content 30%, HD .gtoreq.98%) 100, <b>polypropylene</b> (MFR 15 g/10-min) 100, Diana Process oil (paraffin oil) 200, a crosslinked thermoplastic compn. (d. 0.868 g/cm3, Mw/Mn 2.3)</p>				

made of isotactic **polypropylene** and ethylene-1-octene copolymer 100, and silicone oil (viscosity 100,000 cSt at 25.degree.) 20 parts was dry-blended, kneaded, pelletized, and injection-molded to give a shift-lever knob with good appearance after thermal aging test and hardness (JIS K6301) 70 to be useful as an alternative to vinyl chloride polymers.

- ST automobile shift lever knob thermoplastic elastomer; abrasion oil resistance thermoplastic elastomer molding; styrene isoprene **hydrogenated** block copolymer blend; **polypropylene** thermoplastic elastomer silicone softener blend; metallocene catalyst ethylene alpha olefin copolymer blend
- IT Abrasion-resistant materials  
Oil-resistant materials  
(automotive shift-lever knob made of halogen-free thermoplastic elastomer compns. with good abrasion and oil resistances)
- IT Polysiloxanes, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(automotive shift-lever knob made of halogen-free thermoplastic elastomer compns. with good abrasion and oil resistances)
- IT Polyolefins  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(automotive shift-lever knob made of halogen-free thermoplastic elastomer compns. with good abrasion and oil resistances)
- IT Polymer blends  
Thermoplastic rubber  
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(automotive shift-lever knob made of halogen-free thermoplastic elastomer compns. with good abrasion and oil resistances)
- IT Softening agents  
(for nonarom. rubber; automotive shift-lever knob made of halogen-free thermoplastic elastomer compns. with good abrasion and oil resistances)
- IT Polymerization catalysts  
(metallocene, for prepn. of ethylene-.alpha.-olefin copolymers; automotive shift-lever knob made of halogen-free thermoplastic elastomer compns. with good abrasion and oil resistances)
- IT Automobiles  
(parts; automotive shift-lever knob made of halogen-free thermoplastic elastomer compns. with good abrasion and oil resistances)
- IT Paraffin oils  
RL: MOA (Modifier or additive use); USES (Uses)  
(process oils; automotive shift-lever knob made of halogen-free thermoplastic elastomer compns. with good abrasion and oil resistances)
- IT 9003-07-0, **Polypropylene** 25085-53-4, Isotactic **polypropylene** 26221-73-8, Ethylene-1-octene copolymer  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(automotive shift-lever knob made of halogen-free thermoplastic elastomer compns. with good abrasion and oil resistances)
- IT 105729-79-1D, Isoprene-styrene block copolymer, **hydrogenated**  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(triblock; automotive shift-lever knob made of halogen-free thermoplastic elastomer compns. with good abrasion and oil resistances)

L14 ANSWER 15 OF 66 CAPLUS COPYRIGHT 2002 ACS

AN 2000:191126 CAPLUS

DN 132:223398

TI **Hydrogenated** block copolymers and polymer blends containing them

IN Yonezawa, Jun; Sekikawa, Shinichi; Nakafutami, Hiromi; Sato, Takashi

PA Asahi Kasei Kogyo K. K., Japan

SO PCT Int. Appl., 21 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

IC ICM C08F297-04

ICS C08L053-02; C08L023-10  
CC 37-6 (Plastics Manufacture and Processing)  
Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000015681	A1	20000323	WO 1999-JP4988	19990913
	W: JP, KR, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 1031586	A1	20000830	EP 1999-943311	19990913
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRAI	JP 1998-259667	A	19980914		
	WO 1999-JP4988	W	19990913		
AB	A <b>hydrogenated</b> block copolymer, such as a <b>hydrogenated</b> styrene-butadiene block copolymer, is made up of at least two polymer blocks A consisting mainly of vinyl arom. hydrocarbon compd. units and at least two polymer blocks B consisting mainly of <b>hydrogenated</b> butadiene units and in which the polymer blocks B each has a degree of <b>hydrogenation</b> of .ltoreq.90%, characterized in that at least one of the terminal blocks is a polymer block B, all the terminal polymer blocks B account for 0.1-9.1 wt.%, excluding 9.1 wt.%, of the whole copolymer, the vinyl arom. hydrocarbon compd. units account for 10-25 wt.%, excluding 10 and 25 wt.%, of the whole copolymer, the polymer <b>blocks B</b> before <b>hydrogenation</b> had a 1, 2-bond <b>content</b> of 62-99 mol%, excluding 99 mol%, on the av., and the copolymer, when added to an isotactic <b>propylene</b> homopolymer, lowers the crystn. initiation temp. thereof by 1.5 >C or more. A resin compn., useful in making film or sheet material, is also provided which comprises the above <b>hydrogenated</b> block copolymer and a <b>polypropylene</b> resin.				
ST	styrene butadiene block <b>hydrogenated</b> ; <b>polypropylene</b>				
	styrene butadiene block blend				
IT	Plastic films				
	(hydrogenated block copolymers and polymer blends contg. them)				
IT	Polymer blends				
	RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)				
	(hydrogenated block copolymers and polymer blends contg. them)				
IT	25085-53-4 106107-54-4D, Butadiene-styrene block copolymer, <b>hydrogenated</b>				
	RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)				
	(hydrogenated block copolymers and polymer blends contg. them)				

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD

RE  
(1) Asahi Chemical Industry Co Ltd; JP 912804 A 1997

(2) Shell Internationale Research Maatschappij B V; US 4578429 A CAPLUS

(3) Shell Internationale Research Maatschappij B V; EP 173380 A1 1986 CAPLUS

L14 ANSWER 16 OF 66 CAPLUS COPYRIGHT 2002 ACS

AN 2000:191125 CAPLUS

DN 132:223397

TI **Hydrogenated** block copolymers and polymer blends containing them

IN Yonezawa, Jun; Sasaya, Eiji

PA Asahi Kasei Kogyo Kabushiki Kaisha, Japan

SO PCT Int. Appl., 24 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

IC ICM C08F297-04

ICS C08L053-02; C08L023-10; C08L071-12; C08L025-00

CC 37-6 (Plastics Manufacture and Processing)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 2000015680	A1	20000323	WO 1999-JP4987	19990913
	W: JP, KR, US				
	RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 1029876	A1	20000823	EP 1999-943310	19990913
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
PRAI	JP 1998-259666	A	19980914		
	WO 1999-JP4987	W	19990913		
AB	A <b>hydrogenated</b> block copolymer, such as a <b>hydrogenated</b> styrene-butadiene block copolymer, is made up of at least two polymer blocks A consisting mainly of vinyl arom. hydrocarbon compd. units and at least two polymer blocks B consisting mainly of <b>hydrogenated</b> butadiene units and in which the polymer blocks B each has a degree of <b>hydrogenation</b> of .ltoreq.90 % and at least one of the terminal blocks is polymer block B. All the terminal polymer blocks B account for 0.1-9.1 wt%, of the whole copolymer, the vinyl arom. hydrocarbon compd. units account for 25-80 wt.% of the whole copolymer, and the polymer blocks B before <b>hydrogenation</b> had a 1, 2-bond <b>content</b> of 60-99 mol% on the av. A resin compn. is also provided which comprises the above <b>hydrogenated</b> copolymer, a <b>polypropylene</b> resin, and a polyphenylene ether resin or a polystyrene resin.				
ST	styrene butadiene block <b>hydrogenated</b> ; <b>polypropylene</b> polyoxyphenylene styrene butadiene block blend; polystyrene <b>polypropylene</b> styrene butadiene block blend				
IT	Polyoxyphenylenes RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) ( <b>hydrogenated</b> block copolymers and polymer blends contg. them)				
IT	Polymer blends RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses) ( <b>hydrogenated</b> block copolymers and polymer blends contg. them)				
IT	9003-53-6, Polystyrene RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (butadiene rubber-modified high-impact-resistant; <b>hydrogenated</b> block copolymers and polymer blends contg. them)				
IT	106107-54-4D, Butadiene-styrene block copolymer, <b>hydrogenated</b> RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses) ( <b>hydrogenated</b> block copolymers and polymer blends contg. them)				
IT	9003-07-0, SSA 510B 24938-67-8, Poly(2,6-dimethyl-1,4-phenylene) ether 25134-01-4, 2,6-Xylenol homopolymer 129131-55-1, Styron H 8117 RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) ( <b>hydrogenated</b> block copolymers and polymer blends contg. them)				

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD  
RE

- (1) Asahi Chemical Industry Co Ltd; JP 912804 A 1997
- (2) Shell Internationale Research Maatschappij B V; US 4578429 A CAPLUS
- (3) Shell Internationale Research Maatschappij B V; EP 173380 A1 1986 CAPLUS

L14 ANSWER 17 OF 66 CAPLUS COPYRIGHT 2002 ACS

AN 1999:795877 CAPLUS

DN 132:36541

TI **Hydrogenated** block copolymer and **polypropylene** resin composition containing the same

IN Yonezawa, Jun; Kato, Kiyoo

PA Asahi Kasei Kogyo Kabushiki Kaisha, Japan  
 SO PCT Int. Appl., 23 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA Japanese  
 IC ICM C08F297-04  
 ICS C08L023-12; C08L023-08; C08L053-02  
 CC 37-6 (Plastics Manufacture and Processing)  
 Section cross-reference(s): 39

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9964489	A1	19991216	WO 1999-JP2948	19990602
	W: JP, KR, US RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 1002813	A1	20000524	EP 1999-923870	19990602
	R: DE, FR				
	US 6310138	B1	20011030	US 2000-485130	20000405
PRAI	JP 1998-157190	A	19980605		
	WO 1999-JP2948	W	19990602		
AB	A <b>hydrogenated</b> block copolymer is made up of two polymer blocks A derived from a vinyl arom. hydrocarbon compd. and one <b>hydrogenated</b> butadiene polymer block B in which at least 90% of the olefinic double bonds have been <b>hydrogenated</b> , wherein the content of the vinyl arom. hydrocarbon compd. units in the copolymer is in the range of 13-25 wt.%, the <b>content</b> of 1,2-bonds in the butadiene polymer <b>block</b> before <b>hydrogenation</b> is in the range of 40-60 mol%, and the copolymer has a quantity of heat of crystal fusion <0.05 J/g, an order-disorder transition temp. of .gtoreq.200.degree., and a melt flow rate of 0.1-30 g/10 min, excluding 30 g/10 min. A <b>polypropylene</b> compn., for proving automobile parts, containers, and sheet materials, comprises 60-99 parts of <b>polypropylene</b> resin, 1-40 parts of the above block copolymer, and optionally, 1-40 parts of an ethylene-.alpha.-olefin rubber and 1-30 parts of an inorg. filler.				
ST	styrene butadiene block <b>hydrogenated polypropylene</b> blend				
IT	Polyolefin rubber RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses) (ethylene-octene; <b>hydrogenated</b> block copolymer and <b>polypropylene</b> resin compn. contg. the same)				
IT	Ethylene- <b>propylene</b> rubber RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses) ( <b>hydrogenated</b> block copolymer and <b>polypropylene</b> resin compn. contg. the same)				
IT	Polymer blends RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses) ( <b>hydrogenated</b> block copolymer and <b>polypropylene</b> resin compn. contg. the same)				
IT	106565-43-9 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses) (ethylene- <b>propylene</b> rubber, <b>hydrogenated</b> block copolymer and <b>polypropylene</b> resin compn. contg. the same)				
IT	14807-96-6, Talc, uses RL: MOA (Modifier or additive use); USES (Uses) ( <b>hydrogenated</b> block copolymer and <b>polypropylene</b> resin compn. contg. the same)				
IT	106107-54-4D, Butadiene-styrene block copolymer, <b>hydrogenated</b> 106565-43-9, MK 711H 214692-54-3, MK 755H RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses) ( <b>hydrogenated</b> block copolymer and <b>polypropylene</b>				

resin compn. contg. the same)  
IT 26221-73-8, Ethylene-1-octene copolymer  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or  
engineered material use); USES (Uses)  
(rubber; **hydrogenated** block copolymer and  
**polypropylene** resin compn. contg. the same)

RE.CNT 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD  
RE

- (1) Anon; US 5750612 A CAPLUS
- (2) Anon; EP 697435 A1 CAPLUS
- (3) Asahi Chemical Industry Co, Ltd; JP 10-219040 A 1998 CAPLUS
- (4) Japan Synthetic Rubber Co, Ltd; JP 07-48485 A 1995 CAPLUS
- (5) Kuraray Co, Ltd; JP 03-188114 A 1991 CAPLUS
- (6) Toyota Motor Corp; JP 08-20684 A 1996 CAPLUS

L14 ANSWER 18 OF 66 CAPLUS COPYRIGHT 2002 ACS

AN 1999:236553 CAPLUS

DN 130:297681

TI Modifiers having good compatibility with various polymers, thermoplastic  
resin compositions therefor, and manufacture of the compositions

IN Masuda, Haruhisa; Taniguchi, Toshiro

PA Kuraray Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 16 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08G081-02

ICS C08F293-00; C08L053-02; C08L077-00

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 37

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11100446	A2	19990413	JP 1997-263706	19970929
AB	Title compns. comprise (A) addn. polymers having 0.5-1 OH at one end, (B) polyamides, and (C) A-B block copolymers and are manufd. by (1) kneading 95-99.99 parts A with 0.01-5 parts organometallic compds. capable of (trans)esterification, (2) kneading 3-80 parts of the mixts. with 20-97 parts B, and (3) polymg. the resultant compns. in a solid phase. The addn. polymers A are block copolymers comprising (A1) arom. vinyl-based blocks and/or <b>hydrogenated</b> butadiene (I) homopolymer <b>blocks</b> (1,2-bond content <30%) and (A2) .gtoreq.1 block selected from <b>hydrogenated</b> isoprene (II) homopolymer <b>blocks</b> , <b>hydrogenated</b> I homopolymer <b>blocks</b> (1,2-bond content 30-80%), and <b>hydrogenated</b> I-II copolymer blocks. Thus, 29.97 parts triblock copolymer prepd. from polystyrene (III), <b>hydrogenated</b> 1,3-I-II copolymer, and III was kneaded with 0.03 part tetraisopropyl titanate, subsequently with 70 parts UBE Nylon 1013B (nylon 6), and polymd. in a solid phase to give a modifier. Then, 20 parts of the modifier was kneaded with J 115G ( <b>polypropylene</b> ) and molded to give a test piece showing melt index (JIS K 7210) 15 g/10 min, flexural modulus (JIS K 7203) 1.6 GPa, and Izod impact strength (JIS K 7110) 9 KJ/m <sup>2</sup> .				
ST	styrene block copolymer modifier compatibility; <b>hydrogenated</b> butadiene block copolymer modifier compatibility; isoprene block copolymer modifier manuf compatibility; nylon 6 block copolymer polyamide modifier				
IT	Organometallic compounds RL: CAT (Catalyst use); USES (Uses) (trans)esterification catalyst; manuf. of modifiers having good compatibility with various polymers)				
IT	Polyamides, uses RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); PROC (Process); USES (Uses) (block copolymer with OH-terminated vinyl polymers, modifier; manuf. of modifiers having good compatibility with various polymers)				

IT Polyamides, uses  
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); PROC (Process); USES (Uses)  
 (block, modifier; manuf. of modifiers having good compatibility with various polymers)

IT Polyamides, uses  
 Polymer blends  
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); PROC (Process); USES (Uses)  
 (modifier; manuf. of modifiers having good compatibility with various polymers)

IT Esterification catalysts  
 Transesterification catalysts  
 (organometallic compds.; manuf. of modifiers having good compatibility with various polymers)

IT Polymerization  
 (solid-state; manuf. of modifiers having good compatibility with various polymers)

IT 546-68-9, Tetraisopropyl titanate  
 RL: CAT (Catalyst use); USES (Uses)  
 ((trans)esterification catalyst; manuf. of modifiers having good compatibility with various polymers)

IT 105729-79-1, Isoprene-styrene block copolymer  
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); PROC (Process); USES (Uses)  
 (**hydrogenated**, diblock, modifier; manuf. of modifiers having good compatibility with various polymers)

IT 110389-01-0, 1,3-Butadiene-isoprene-styrene block copolymer  
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); PROC (Process); USES (Uses)  
 (**hydrogenated**, triblock, modifier; manuf. of modifiers having good compatibility with various polymers)

IT 25038-54-4, Ube Nylon 1013B, uses 25038-54-4D, Ube Nylon 1013B, block copolymer with OH-terminated vinyl polymers 105729-79-1D, Isoprene-styrene block copolymer, **hydrogenated**, OH-terminated, copolymer with polyamide 110389-01-0D, 1,3-Butadiene-isoprene-styrene block copolymer, **hydrogenated**, OH-terminated, copolymer with polyamide  
 RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); PROC (Process); USES (Uses)  
 (modifier; manuf. of modifiers having good compatibility with various polymers)

L14 ANSWER 19 OF 66 CAPLUS COPYRIGHT 2002 ACS

AN 1999:182590 CAPLUS

DN 130:268078

TI Manufacture of **propylene** polymer compositions containing polyoxyphenylenes and **hydrogenated** block copolymers

IN Nakagawa, Matsuyoshi; Akiyama, Yoshikuni

PA Asahi Chemical Industry Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08J003-20

ICS C08J003-20; B29B007-48; C08L023-10; C08L071-12; C08L053-02

CC 37-3 (Plastics Manufacture and Processing)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11071466	A2	19990316	JP 1997-232773	19970828

AB The compns. contain 100 parts a 5-55:95-45 mixt. of polyoxyphenylenes (A)



and **propylene** polymers (B), and 5-30 parts **hydrogenated** block copolymers (C) comprising (a) .gtoreq.2 polystyrene blocks and (b) .gtoreq.1 isoprene **blocks** with total **content** of **vinyl** bonds 40-80%. Polymer blends with good heat creep resistance are obtained as follows: (1) feeding A and optionally a part of B to a twin-screw extruder via its first feed throat while maintaining the front barrel temp. (T1) at 230-340.degree., (2) feeding the B and C to the extruder via its second feed throat while maintaining the back barrel temp. (T2) at 230-310.degree., (3) maintaining the temps. so that T1 .gtoreq. T2 when T1 reaching .gtoreq.280.degree., (4) using a front kneading section having length L1 and screw having outer diam. D1 so that the L1/D1 ratio is in the range of 2-15, and (5) using a back kneading section having length L2 so that the L2/D1 ratio is in the range of 2-15. Thus, poly(2,6-xylenol) 35, **polypropylene** 65, and polystyrene (I)-**hydrogenated** isoprene-butadiene copolymer-I block copolymer 10% were kneaded in this manner in a twin-screw kneader to give a blend showing high heat creep resistance.

- ST **propylene** polymer blend heat creep resistance; polyoxyphenylene **polypropylene** impact modifier blend; styrene isoprene butadiene block copolymer blend; xylenol polymer blend **polypropylene** heat resistance
- IT Extrusion of plastics and rubbers  
Heat-resistant materials  
Polymer blend compatibilizers  
(manuf. of heat creep-resistant blends contg. **propylene** polymer, polyoxyphenylenes and **hydrogenated** block copolymers)
- IT Polyoxyphenylenes  
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(manuf. of heat creep-resistant blends contg. **propylene** polymer, polyoxyphenylenes and **hydrogenated** block copolymers)
- IT Polymer blends  
RL: PEP (Physical, engineering or chemical process); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(manuf. of heat creep-resistant blends contg. **propylene** polymer, polyoxyphenylenes and **hydrogenated** block copolymers)
- IT 9003-07-0 24938-67-8, Poly[oxy(2,6-dimethyl-1,4-phenylene)]  
25134-01-4, Poly(2,6-xylenol)  
RL: PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PROC (Process); USES (Uses)  
(manuf. of heat creep-resistant blends contg. **propylene** polymer, polyoxyphenylenes and **hydrogenated** block copolymers)
- IT 105729-79-1DP, Isoprene-styrene block copolymer, **hydrogenated**  
110389-01-ODP, Butadiene-isoprene-styrene block copolymer, **hydrogenated**  
RL: IMF (Industrial manufacture); PEP (Physical, engineering or chemical process); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); PROC (Process); USES (Uses)  
(triblock, compatibilizers; manuf. of heat creep-resistant blends contg. **propylene** polymer, polyoxyphenylenes and **hydrogenated** block copolymers)

L14 ANSWER 20 OF 66 CAPLUS COPYRIGHT 2002 ACS

AN 1999:156732 CAPLUS

DN 130:197479

TI **Propylene** polymer compositions containing impact-resistant rubber-modified styrene polymers

IN Sakata, Minoru; Akiyama, Yoshikuni

PA Asahi Chemical Industry Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08L023-10

ICS C08L051-04; C08L071-12; C08L023-10; C08L053-02  
CC 37-6 (Plastics Manufacture and Processing)  
Section cross-reference(s): 38, 39

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11060836	A2	19990305	JP 1997-218705	19970813
AB	Title compns. contain 100 parts mixts. of (A) 45-95% <b>propylene</b> polymers and (B) 5-55% polyoxyphenylenes, (C) 1-30 parts <b>hydrogenated</b> block copolymers consisting of (a) .gtoreq.1 arom. vinyl compd. blocks and (b) .gtoreq.1 conjugated diene compd. <b>blocks</b> with total <b>content</b> of 1,2 -vinyl bond and 3,4-vinyl bond 30-90%, and (D) 1-400 parts impact-resistant rubber-modified styrene polymers contg. rubber particles with dispersion particle size 0.14-0.70 .mu.m. Thus, <b>polypropylene</b> 60, 2,6-xylenol homopolymer 24, <b>hydrogenated</b> butadiene-styrene block copolymer 10, and polybutadiene rubber-contg. polystyrene 16 parts were melt kneaded, pelletized, and injection molded to give a test piece showing Izod impact strength 45 kg-cm/cm, heat distortion temp. 107.degree., and flexural modulus 16,500 kg/cm2.				
ST	impact resistance rubber modified polystyrene blend; <b>propylene</b> polymer polyoxyphenylene blend impact resistance; <b>hydrogenated</b> block copolymer blend heat resistance				
IT	Impact-resistant materials Impact-resistant materials (heat-resistant; <b>propylene</b> polymer compns. contg. impact-resistant rubber-modified styrene polymers)				
IT	Heat-resistant materials Heat-resistant materials (impact-resistant; <b>propylene</b> polymer compns. contg. impact-resistant rubber-modified styrene polymers)				
IT	Particle size (of rubber; <b>propylene</b> polymer compns. contg. impact-resistant rubber-modified styrene polymers)				
IT	Polyoxyphenylenes RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses) ( <b>propylene</b> polymer compns. contg. impact-resistant rubber-modified styrene polymers)				
IT	Butadiene rubber, uses RL: MOA (Modifier or additive use); USES (Uses) (with controlled particle size; <b>propylene</b> polymer compns. contg. impact-resistant rubber-modified styrene polymers)				
IT	9003-17-2 RL: MOA (Modifier or additive use); USES (Uses) (butadiene rubber, with controlled particle size; <b>propylene</b> polymer compns. contg. impact-resistant rubber-modified styrene polymers)				
IT	9003-07-0, <b>Polypropylene</b> 9003-53-6, Polystyrene 24938-67-8, 2,6-Xylenol homopolymer, sru 25134-01-4, 2,6-Xylenol homopolymer 105729-79-1D, Isoprene-styrene block copolymer, <b>hydrogenated</b> 106107-54-4D, Butadiene-styrene block copolymer, <b>hydrogenated</b> RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses) ( <b>propylene</b> polymer compns. contg. impact-resistant rubber-modified styrene polymers)				

L14 ANSWER 21 OF 66 CAPLUS COPYRIGHT 2002 ACS  
AN 1999:156731 CAPLUS  
DN 130:253146  
TI **Propylene** polymer compositions with good processability  
IN Yamaguchi, Masashi; Suzuki, Kenichi; Miyata, Hiroshi  
PA Tosoh Corp., Japan  
SO Jpn. Kokai Tokkyo Koho, 7 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese

IC ICM C08L023-10  
ICS C08L053-02; C08L023-10  
CC 37-6 (Plastics Manufacture and Processing)  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11060835	A2	19990305	JP 1997-215051	19970808
AB	The compns. contain crosslinked products of arom. vinyl- <b>hydrogenated</b> diene block copolymers comprising 3-50:50-97 arom. vinyl compd. units and conjugated diene units and having blocks of A-B, A-B-A, or A-B-C, where (A) is a block of arom. vinyl polymers, (B) is a block of <b>hydrogenated</b> conjugated diene polymers (1,2-configuration .gtoreq.65 mol%, <b>hydrogenation</b> degree .gtoreq.90 mol%) or random copolymers from the <b>hydrogenated</b> conjugated dienes and arom. vinyl compds., and (C) is a tapered block derived from arom. vinyl compds. and <b>hydrogenated</b> conjugated dienes. The compns. can be stretched by extrusion through circular dies (inside diam. D) so that the strand diam. (d) becomes .ltoreq. 0.25 .times. D, and show a ratio (r) of shear viscosity to max. elongation viscosity (measured at the same temp. and shear rate) of .gtoreq.5. Thus, 1 part crosslinked <b>hydrogenated block</b> copolymer (styrene content 4 mol%, vinyl content before <b>hydrogenation</b> 65%) was kneaded with 9 parts <b>polypropylene</b> (Chisso Polypro K 1011) to give a compn. having r 5.8, and good processability in vacuum forming.				
ST	<b>polypropylene</b> crosslinked <b>hydrogenated</b> diene copolymer processability; styrene <b>hydrogenated</b> diene copolymer <b>polypropylene</b> processability; vacuum forming <b>polypropylene</b> <b>hydrogenated</b> diene copolymer				
IT	Styrene-butadiene rubber, uses RL: MOA (Modifier or additive use); USES (Uses) ( <b>hydrogenated</b> , crosslinked, Dynaron 1320P; <b>propylene</b> polymer compns. contg. crosslinked <b>hydrogenated</b> diene block copolymers with good processability)				
IT	Molding of plastics and rubbers (vacuum forming; <b>propylene</b> polymer compns. contg. crosslinked <b>hydrogenated</b> diene block copolymers with good processability)				
IT	9003-07-0 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses) ( <b>propylene</b> polymer compns. contg. crosslinked <b>hydrogenated</b> diene block copolymers with good processability)				
IT	9003-55-8 RL: MOA (Modifier or additive use); USES (Uses) (styrene-butadiene rubber, <b>hydrogenated</b> , crosslinked, Dynaron 1320P; <b>propylene</b> polymer compns. contg. crosslinked <b>hydrogenated</b> diene block copolymers with good processability)				

L14 ANSWER 22 OF 66 CAPLUS COPYRIGHT 2002 ACS  
AN 1999:49343 CAPLUS  
DN 130:126109  
TI Polymer compositions with good heat resistance, impact resistance, and  
vibration damping properties  
IN Akiyama, Yoshikuni; Shoji, Osamu  
PA Asahi Chemical Industry Co., Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 8 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM C08L023-10  
ICS C08L071-12; C08L023-10; C08L053-02  
CC 38-3 (Plastics Fabrication and Uses)  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 11012406	A2	19990119	JP 1997-170518	19970626
	JP 3220416	B2	20011022		

AB Title compns. comprise (A) 5-95% **propylene** polymers, (B) 5-95% polyoxyphenylenes at A + B 100 parts, and (C) 1-30 parts block copolymers manufd. by **hydrogenating** block copolymers composed of arom. vinyl polymer blocks and butadiene (I)-isoprene (II) copolymer blocks (ratio of II/I 80/20-20/80, content of 1,2- and 3,4-vinyl bond 50-80%). Thus, a compn. comprising **polypropylene** 60, poly(2,6-xylenol) 40, and a X-Y-X triblock copolymer (X = polystyrene block; Y = **hydrogenated** 70:30 I-II copolymer **block**; vinyl bond **content** 76%) 10 parts, was kneaded, pelletized, and injection-molded to give a test piece showing heat distortion temp. under 18.6-kg/cm<sup>2</sup> load 110.degree., Izod impact strength 12.1 kg-cm/cm, and loss coeff. 6.1%.

ST impact resistance vibration damper **polypropylene** polyoxyphenylene; heat resistance vibration damper **polypropylene** polyoxyphenylene; **hydrogenated** butadiene isoprene styrene block copolymer; polyxylenol **polypropylene** vibration damper impact resistance

IT Heat-resistant materials  
Impact-resistant materials  
Vibration dampers  
(heat- and impact-resistant vibration damper compns. contg. **polypropylene**, polyoxyphenylenes, and **hydrogenated** block copolymers)

IT Polyoxyphenylenes  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(heat- and impact-resistant vibration damper compns. contg. **polypropylene**, polyoxyphenylenes, and **hydrogenated** block copolymers)

IT Polymer blends  
RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(heat- and impact-resistant vibration damper compns. contg. **polypropylene**, polyoxyphenylenes, and **hydrogenated** block copolymers)

IT 110389-01-0D, Butadiene-isoprene-styrene block copolymer, triblock, **hydrogenated**  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(compatibilizer; heat- and impact-resistant vibration damper compns. contg. **polypropylene**, polyoxyphenylenes, and **hydrogenated** block copolymers)

IT 9003-07-0, **Polypropylene** 24938-67-8, 2,6-Xylenol homopolymer, sru 25134-01-4, 2,6-Xylenol homopolymer  
RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
(heat- and impact-resistant vibration damper compns. contg. **polypropylene**, polyoxyphenylenes, and **hydrogenated** block copolymers)

L14 ANSWER 23 OF 66 CAPLUS COPYRIGHT 2002 ACS  
AN 1999:49342 CAPLUS  
DN 130:111115  
TI Heat-resistant resin compositions with good creep strength and durability and their manufacture  
IN Shoji, Osamu; Akiyama, Yoshikuni; Nakahashi, Junichi; Kasahara, Hideo  
PA Asahi Chemical Industry Co., Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 10 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM C08L023-10  
ICS C08L071-12; C08L023-10; C08L053-02  
CC 37-6 (Plastics Manufacture and Processing)  
FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI JP 11012405 A2 19990119 JP 1997-170515 19970626  
 JP 3263007 B2 20020304

AB Title compns. contain (a) 45-95% **propylene** polymers, (b) 5-55% poly(phenylene ethers), and (c) 1-30 parts (on 100 parts a + b) **hydrogenated** block copolymers composed of .gtoreq.2 polystyrene blocks having no. av. mol. wt. (Mn) .gtoreq.15,000 and .gtoreq.1 polyisoprene **block** having 1,2- and 3,4-vinyl bond **content** .gtoreq.45% and iodine value .ltoreq.40. The compns. are manufd. by adding (c) 1-30 parts the **hydrogenated** block copolymers and (a) 15-95% the **propylene** polymers to molten blend composed of (b) 5-55% the poly(phenylene ether) and (a) 0-30% the **propylene** polymers and melt-blending. Thus, 70 parts **polypropylene** (MFR 0.5 g/10 min), 30 parts poly(2,4-xyleneol), and 7.5 parts **hydrogenated** block copolymer (iodine value 33.9) composed of polystyrene block (Mn 20,200), **hydrogenated** polyisoprene **block** (vinyl bond **content** 54%), and polystyrene (Mn 20,000) were blended, pelletized, and injection-molded to give test pieces showing heat distortion temp. (under 18.6 kg load) 103.degree. and good creep strength (65.degree., 130-kg/cm2 load) 68 h.

ST **polypropylene** polyoxyphenylene **hydrogenated** block copolymer blend; **hydrogenated** isoprene styrene block copolymer blend; heat resistance **polypropylene** polyoxyphenylene blend

IT Heat-resistant materials  
 (manuf. of heat-resistant resin compns. with good creep strength and durability)

IT Polyoxyphenylenes  
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
 (manuf. of heat-resistant resin compns. with good creep strength and durability)

IT 9003-07-0, **Polypropylene** 25134-01-4, Poly(2,6-xyleneol) 105729-79-1D, Isoprene-styrene block copolymer, **hydrogenated**  
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
 (manuf. of heat-resistant resin compns. with good creep strength and durability)

L14 ANSWER 24 OF 66 CAPLUS COPYRIGHT 2002 ACS  
 AN 1998:795545 CAPLUS  
 DN 130:39201  
 TI Polyamide block copolymers for modifiers of polymers  
 IN Masuda, Haruhisa; Taniguchi, Toshiro  
 PA Kuraray Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 13 pp.  
 CODEN: JKXXAF

DT Patent  
 LA Japanese  
 IC ICM C08G081-02  
 ICS C08F297-04; C08G069-26  
 CC 37-6 (Plastics Manufacture and Processing)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10330491	A2	19981215	JP 1997-156164	19970530
AB	Title block copolymers consist of (A) polyamide blocks and (B) addn. polymer blocks comprising (a) .gtoreq.1 blocks selected from arom. vinyl compd. <b>blocks</b> and <b>hydrogenated</b> polybutadiene <b>blocks</b> with 1,2-bond <b>content</b> <30% and .gtoreq.1 blocks selected from <b>hydrogenated</b> polyisoprene <b>blocks</b> , <b>hydrogenated</b> polybutadiene <b>blocks</b> with 1,2-bond <b>content</b> 30-80%, and <b>hydrogenated</b> butadiene-isoprene copolymer blocks or (b) .gtoreq.1 blocks selected from arom. vinyl compd. blocks and polyisobutylene blocks. The modifiers comprising the block copolymers are also claimed. Thus, 70 parts Ube Nylon 1013B (nylon 6) and 30 parts OH-terminated <b>hydrogenated</b> butadiene-isoprene-styrene block copolymer were melt kneaded and polymd. to give a diblock copolymer, 20 parts of which was mixed with 80 parts J 115G ( <b>polypropylene</b> ), melt kneaded, pelletized, and injection molded to give a test piece				

showing impact strength 12 kJ/m<sup>2</sup>, flexural modulus 1.5 GPa, and melt index 15 g/10 min.

ST polyamide block copolymer impact modifier; butadiene polyamide block copolymer impact modifier; isoprene polyamide block copolymer impact modifier; styrene polyamide block copolymer impact modifier; isobutylene polyamide block copolymer impact modifier

IT Polyamides, preparation  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)  
 (block; polyamide-addn. polymer block copolymers for impact modifiers of polymers)

IT Impact-resistant materials  
 (polyamide-addn. polymer block copolymers for impact modifiers of polymers)

IT Ionomers  
 Polyamides, properties  
 Polyamides, properties  
 Polycarbonates, properties  
 Polyesters, properties  
 Polyolefins  
 Polyoxyphenylenes  
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
 (polyamide-addn. polymer block copolymers for impact modifiers of polymers)

IT Polyamides, preparation  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)  
 (polymers with **hydrogenated** isoprene-styrene block copolymers; polyamide-addn. polymer block copolymers for impact modifiers of polymers)

IT 25038-54-4DP, Ube Nylon 1013B, polymers with **hydrogenated** isoprene-styrene block copolymers 105729-79-1DP, Isoprene-styrene block copolymer, **hydrogenated**, carboxy-terminated, polymers with nylon 6 110389-01-ODP, Butadiene-isoprene-styrene block copolymer, **hydrogenated**, hydroxy-terminated, polymers with nylon 6  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PREP (Preparation); USES (Uses)  
 (polyamide-addn. polymer block copolymers for impact modifiers of polymers)

IT 100-42-5D, Styrene, polymers 9003-07-0, J 115G 25038-54-4, Ube Nylon 1013B, properties  
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
 (polyamide-addn. polymer block copolymers for impact modifiers of polymers)

L14 ANSWER 25 OF 66 CAPLUS COPYRIGHT 2002 ACS

AN 1998:724286 CAPLUS

DN 130:39562

TI Polyolefin/**hydrogenated** diene-based polymer blends with good heat and impact resistance for cap linings

IN Goto, Tomoki; Nakamura, Kenichi

PA Tosoh Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08L023-00

ICS B65D053-00; C08K005-20; C08L053-02

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 17

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10298357	A2	19981110	JP 1997-104625	19970422
AB	Blends providing airtight cap linings comprise 100 parts (20-97):(3-80)				

(%) polyolefins and .gtoreq.90-mol%-**hydrogenated** diene-based polymers and 0.01-1 part C8-22 fatty acid amides. The **hydrogenated** diene-based polymers are A(BA)<sub>n</sub>- or (AB)<sub>m</sub>-type **block** copolymers [A = polybutadiene segments of **vinyl** linkage **contents** (.alpha.) in conjugated dienes .ltoreq.20 mol%; B = polybutadiene or butadiene-arom. vinyl copolymer segments of .alpha. 25-95 mol%; n .gtoreq. 1; m .gtoreq. 2]. Thus, 30:70:0.1 **polypropylene** (Polypro K 1800), 98-mol%-**hydrogenated** diene polymer (.alpha. in A and in B 12 and 45 mol%, resp.), and erucic amide were kneaded at 210.degree., pelletized, and press molded to give a specimen showing evapn. residue after 1-h extn. with 2-mL (/cm2-sample) n-heptane 25 ppm and compression set (90.degree.) 55%. A cap with a lining of the compn. showed good openability.

ST polyolefin **hydrogenated** polybutadiene blend cap lining; erucic amide **polypropylene hydrogenated** rubber blend; heat impact resistant cap lining **polypropylene**

IT Amides, uses  
RL: MOA (Modifier or additive use); USES (Uses)  
(fatty, C8-22; polyolefin/**hydrogenated** diene-based polymer blends with good heat and impact resistance for cap linings)

IT Impact-resistant materials  
Impact-resistant materials  
(heat-resistant; polyolefin/**hydrogenated** diene-based polymer blends with good heat and impact resistance for cap linings)

IT Butadiene rubber, uses  
RL: FFD (Food or feed use); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)  
(**hydrogenated**; polyolefin/**hydrogenated** diene-based polymer blends with good heat and impact resistance for cap linings)

IT Heat-resistant materials  
Heat-resistant materials  
(impact-resistant; polyolefin/**hydrogenated** diene-based polymer blends with good heat and impact resistance for cap linings)

IT Bottle caps  
Coating materials  
(linings; polyolefin/**hydrogenated** diene-based polymer blends with good heat and impact resistance for cap linings)

IT Polymer blends  
RL: FFD (Food or feed use); PRP (Properties); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)  
(polyolefin/**hydrogenated** diene-based polymer blends with good heat and impact resistance for cap linings)

IT Linear low density polyethylenes  
RL: FFD (Food or feed use); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)  
(ultralow d.; polyolefin/**hydrogenated** diene-based polymer blends with good heat and impact resistance for cap linings)

IT 9003-17-2  
RL: FFD (Food or feed use); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)  
(butadiene rubber, **hydrogenated**; polyolefin/**hydrogenated** diene-based polymer blends with good heat and impact resistance for cap linings)

IT 74-85-1D, Ethylene, polymers with .alpha.-olefins 9002-88-4  
RL: FFD (Food or feed use); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)  
(polyolefin/**hydrogenated** diene-based polymer blends with good heat and impact resistance for cap linings)

IT 112-84-5, Erucic amide 301-02-0  
RL: MOA (Modifier or additive use); USES (Uses)  
(polyolefin/**hydrogenated** diene-based polymer blends with good heat and impact resistance for cap linings)

IT 25085-53-4, Polypro K 1800

RL: FFD (Food or feed use); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)

(polyolefin/**hydrogenated** diene-based rubber blends with good heat and impact resistance for cap linings)

IT 106-99-0D, Butadiene, block copolymers with arom. vinyl monomers, **hydrogenated**

RL: FFD (Food or feed use); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)

(rubber; polyolefin/**hydrogenated** diene-based polymer blends with good heat and impact resistance for cap linings)

IT 25087-34-7, Lumitac 54-1

RL: FFD (Food or feed use); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)

(ultralow-d.; polyolefin/**hydrogenated** diene-based polymer blends with good heat and impact resistance for cap linings)

L14 ANSWER 26 OF 66 CAPLUS COPYRIGHT 2002 ACS

AN 1998:701072 CAPLUS

DN 129:317421

TI **Hydrogenated** block copolymers and compositions containing them

IN Yonezawa, Jun; Kato, Kiyoo; Sasaya, Eiji; Sato, Takashi

PA Asahi Kasei Kogyo K. K., Japan

SO Ger. Offen., 24 pp.

CODEN: GWXXBX

DT Patent

LA German

IC ICM C08F297-04

ICS C08L023-00; C08L053-00

CC 39-4 (Synthetic Elastomers and Natural Rubber)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	DE 19815895	A1	19981015	DE 1998-19815895	19980408
	DE 19815895	C2	20000413		
	JP 11236425	A2	19990831	JP 1998-93378	19980406
	US 6239218	B1	20010529	US 1998-57404	19980409
PRAI	JP 1997-90981	A	19970409		
	JP 1997-348010	A	19971217		

AB The copolymers contain .gtoreq.2 A blocks derived from vinylarom. hydrocarbon monomers and .gtoreq.2 B blocks derived from conjugated diene monomers, which have been .gtoreq.90% **hydrogenated**, at least one of the terminal blocks being a B block, where the content of terminal B blocks in the overall polymer is 0.1-9.1 wt.% and the content of vinylarom. hydrocarbon monomer residues in the overall copolymer is 12-25 wt.%. Thus, alternating stages of polymn. of appropriate amts. of styrene and butadiene by BuLi in cyclohexane contg. Me<sub>2</sub>NCH<sub>2</sub>CH<sub>2</sub>NMe<sub>2</sub> gave an ABAB block copolymer with 19.7% styrene **content**, 41.8% **1**, 2-configuration in the butadiene **blocks**, and 4.37% of the total wt. in the terminal polybutadiene block, which was **hydrogenated** to the extent of 99.8% in cyclohexane contg. BuLi and titanocene dichloride. Similar **hydrogenated** block copolymers were dry blended with **propylene** block copolymers to give compns. with high impact strength and flexural modulus and low brittleness temps.

ST **hydrogenated** block SBR polyolefin blend; impact resistance rubber polyolefin blend

IT Isoprene-styrene rubber

Styrene-butadiene rubber, preparation

RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); PREP (Preparation); USES (Uses)

(**hydrogenated**, block; prepn. of **hydrogenated** multiblock copolymer rubbers for use in polyolefin blends)

IT Polyolefins

RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(polyolefin blends with **hydrogenated** multiblock copolymer)



rubbers)  
 IT Polymer blends  
 RL: PRP (Properties)  
 (polyolefin blends with **hydrogenated** multiblock copolymer rubbers)  
 IT Polyolefin rubber  
 RL: POF (Polymer in formulation); USES (Uses)  
 (polyolefin blends with **hydrogenated** multiblock copolymer rubbers and)  
 IT 109-72-8, Butyllithium, uses 1271-19-8, Titanocene dichloride  
 RL: CAT (Catalyst use); USES (Uses)  
 (**hydrogenation** catalyst; prepn. of **hydrogenated** multiblock copolymer rubbers for use in polyolefin blends)  
 IT 25038-32-8P  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); PREP (Preparation); USES (Uses)  
 (isoprene-styrene rubber, **hydrogenated**, block; prepn. of **hydrogenated** multiblock copolymer rubbers for use in polyolefin blends)  
 IT 106565-43-9, MK 711H 214692-54-3, MK 755H  
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
 (polyolefin blends with **hydrogenated** multiblock copolymer rubbers)  
 IT 9003-55-8P  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); PREP (Preparation); USES (Uses)  
 (styrene-butadiene rubber, **hydrogenated**, block; prepn. of **hydrogenated** multiblock copolymer rubbers for use in polyolefin blends)

L14 ANSWER 27 OF 66 CAPLUS COPYRIGHT 2002 ACS

AN 1998:512353 CAPLUS

DN 129:217669

TI Low-cost polyolefin multilayer packaging films having good transparency and heat sealability

IN Kishine, Masahiro

PA Mitsui Chemicals Inc., Japan

SO Jpn. Kokai Tokkyo Koho, 21 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B32B027-32

ICS B32B027-32; B65D065-40; C08L023-04

CC 38-3 (Plastics Fabrication and Uses)

Section cross-reference(s): 17, 67

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10211682	A2	19980811	JP 1997-16563	19970130
	CA 2227840	AA	19980730	CA 1998-2227840	19980123
	CN 1191804	A	19980902	CN 1998-105747	19980127
	AU 9852799	A1	19980806	AU 1998-52799	19980129
	AU 719388	B2	20000511		
	EP 860272	A2	19980826	EP 1998-300664	19980129
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	US 2001014384	A1	20010816	US 2001-794627	20010228
PRAI	JP 1997-16563	A	19970130		
	JP 1997-307474	A	19971110		
	US 1998-16644	A3	19980130		

GI

AB The title films, suitable for food packaging, consist of (i) outer layers prep'd. from resin compns. comprising (A) 59.5-99.5% ethylene (I)-C3-20 .alpha.-olefin copolymers satisfying 0.850 g/cm<sup>3</sup> .ltoreq. d. <0.910 g/cm<sup>3</sup> and melt flow rate (MFR) 0.1-10 g/10 min (190.degree.; 2.16 kg), (B) 0-40% high-pressure low-d. polyethylene having d. 0.915-0.930 g/cm<sup>3</sup>, and (C) 0.5-10% antifogging agents, and (ii) a middle layer prep'd. from resin compns. comprising (D) I homopolymer or I-C3-20 .alpha.-olefin copolymers satisfying d. 0.930-0.980 g/cm<sup>3</sup> and MFR 0.1-10 g/10 min (190.degree.; 2.16 kg) and/or (E) **propylene**-based polymers satisfying d. 0.880-0.920 g/cm<sup>3</sup> and MFR 0.1-100 g/10 min (230.degree.; 2.16 kg) and (X) .gtoreq.1 resin selected from the following groups F-K wherein both components D and G can't be used at the same time. The groups comprise (F) (un)**hydrogenated** block copolymers comprising .gtoreq.1 polymer block selected from F1-F3 and .gtoreq.1 polymer block selected from F4 and F5, (G) I-C3-20 .alpha.-olefin copolymers satisfying d. 0.850-0.895 g/cm<sup>3</sup> and MFR 0.1-10 g/10 min (190.degree.; 2.16 kg), (H) .gtoreq.1 cyclic olefin-based resin satisfying Tg .ltoreq.30.degree. and MFR 0.1-10 g/10 min and selected from (H1) .alpha.-olefin-cyclic olefin random copolymers comprising I and/or C3-20 .alpha.-olefins and cyclic olefins II [n, q = 0, 1; m .gtoreq.0; R1-R18, Ra, Rb = H, halo, hydrocarbyl; R15R16 may form monocycle or polycycles; rings in brackets may have double bonds; R15R16, R17R18 may form alkylidene groups; when q = 0 then 5-membered rings will be formed] or III (h, m .gtoreq. 0; j, k = 0-2; R7-R15, R17, R18 = H, halo, hydrocarbyl; R19-R27 = H, halo, hydrocarbyl, alkoxy), (H2) II or III ring opening (co)polymers or their **hydrogenated** copolymers, and (H3) graft modification of H1 or H2, (I) arom. copolymers comprising arom. monomers and I and/or .alpha.-olefins and satisfying Tg .ltoreq.30.degree. and MFR 0.1-10 g/10 min, (J) olefin copolymer comprising 10-85 mol.% **propylene**, 3-60 mol.% 1-butene, and 10-85 mol.% C5-12 .alpha.-olefins and having intrinsic viscosity (.eta.) 0.5-6 dL/g (135.degree., decalin), and (K) butene-based polymers satisfying MFR 0.1-5 g/10 min (190.degree.; 2.16 kg) and d. 0.890-0.915 g/cm<sup>3</sup>. Further, the F group is divided into the following small groups: (F1) styrene or its deriv. polymer blocks, (F2) C2-20 .alpha.-olefin polymer blocks, (F3) styrene or its deriv. and C2-20 .alpha.-olefin copolymer blocks, (F4) isoprene polymer **block** or isoprene-butadiene copolymer **block** (1,2- and 3,4-bond **content** in isoprene .gtoreq.25%), and (F5) butadiene (co)polymer **block** (1,2- and 3,4-**vinyl bond content** .gtoreq.25%). Thus, (i) an outer layer compn. comprising 50% I-1-hexene copolymer (d. 0.901 g/cm<sup>3</sup>; MFR 3.4 g/10 min), LDPE (d. 0.925 g/cm<sup>3</sup>; MFR 0.57 g/10 min), and antifogging agent contg. 5% diglycerol sesquilaurate, 0.75% polyoxyethylene lauryl ether, and 0.25% lauryl diethanolamine and (ii) a middle layer compn. comprising 50% butene-**propylene** copolymer (d. 0.900 g/cm<sup>3</sup>; MFR 1.0 g/10 min) and 50% butene-I-**propylene** copolymer (d. 0.910 g/cm<sup>3</sup>; MFR 7.0 g/10 min) were extrusion-molded to give a 3-layer film showing haze (ASTM D 1003) 1.6%.

ST LDPE polyolefin multilayer film heat sealability; ethylene hexene copolymer laminate food packaging; butene **propylene** copolymer multilayer film transparency; glycerol sesquilaurate antifogging agent multilayer film; polyoxyethylene lauryl ether antifogging agent film; lauryl ethanolamine antifogging agent multilayer film; metallocene polymn catalyst polyolefin multilayer film

IT Packaging materials  
(films, heat-sealable; low-cost polyolefin multilayer heat-sealable transparent packaging films)

IT Packaging materials  
(laminated films; low-cost polyolefin multilayer heat-sealable transparent packaging films)

IT Food packaging materials  
Transparent films  
(low-cost polyolefin multilayer heat-sealable transparent packaging films)

IT Polymer blends  
Polyolefins  
RL: FFD (Food or feed use); POF (Polymer in formulation); PRP

(Properties); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)  
 (low-cost polyolefin multilayer heat-sealable transparent packaging films)

IT Polymerization catalysts  
 (metallocene; low-cost polyolefin multilayer heat-sealable transparent packaging films)

IT 1541-67-9, Lauryl diethanolamine 9002-92-0, Polyoxyethylene lauryl ether 70226-26-5, Diglycerol sesquilaurate  
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)  
 (antifogging agent; low-cost polyolefin multilayer heat-sealable transparent packaging films)

IT 25213-02-9, Ethylene-1-hexene copolymer  
 RL: FFD (Food or feed use); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)  
 (low-cost polyolefin multilayer heat-sealable transparent packaging films)

IT 9002-88-4, Polyethylene  
 RL: FFD (Food or feed use); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)  
 (low-d., outer layer; low-cost polyolefin multilayer heat-sealable transparent packaging films)

IT 9019-30-1, Butene-**propylene** copolymer 25068-12-6, Ethylene-styrene copolymer 25087-34-7, 1-Butene-ethylene copolymer 26007-43-2, Ethylene-norbornene copolymer 61722-01-8, Butene-ethylene-**propylene** copolymer 100333-34-4, 1-Butene-4-Methylpentene-**Propylene** copolymer 106108-28-5, Butylene-ethylene-styrene block copolymer  
 RL: FFD (Food or feed use); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)  
 (middle layer; low-cost polyolefin multilayer heat-sealable transparent packaging films)

IT 26221-73-8, Ethylene-1-octene copolymer  
 RL: FFD (Food or feed use); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); BIOL (Biological study); USES (Uses)  
 (outer layer; low-cost polyolefin multilayer heat-sealable transparent packaging films)

L14 ANSWER 28 OF 66 CAPLUS COPYRIGHT 2002 ACS

AN 1998:459746 CAPLUS

DN 129:123661

TI High 1,2 content thermoplastic elastomer/oil/polyolefin composition

IN Djiauw, Lie Khong; Modic, Michael John

PA Shell Oil Co., USA

SO U.S., 6 pp., Cont.-in-part of U. S. Ser. 675,637, abandoned.

CODEN: USXXAM

DT Patent

LA English

IC ICM C08L053-02

ICS C08L009-06; C08L047-00

NCL 525098000

CC 39-4 (Synthetic Elastomers and Natural Rubber)

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5777031	A	19980707	US 1997-898001	19970725
	CA 2258555	AA	19980115	CA 1997-2258555	19970702
	CN 1224438	A	19990728	CN 1997-196059	19970702
	ES 2143317	T3	20000501	ES 1997-931790	19970702
	KR 2000022418	A	20000425	KR 1998-710850	19981230
PRAI	US 1996-675637	B2	19960703		

AB A thermoplastic elastomer compn. contg. a block copolymer having at least

two elastomeric end blocks and a high 1,2-addn. butadiene midblock, paraffin oil, and cryst. polyolefin. The compn. exhibits greater softness, better processability and better elastic properties as compared with similar compns. made with normal amts. of a 1,2-addn. Compns. are useful for utilities such as overmolding into hard substrates, grips, medical tubing and misc. rubbery articles.

- ST **hydrogenated** styrene butadiene rubber block compn; paraffin oil  
**hydrogenated** block SBR compn; **polypropylene**  
**hydrogenated** block SBR compn
- IT Paraffin oils  
RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)  
(Drakeol 34; elastomeric oil/polyolefin compn. contg.  
**hydrogenated** butadiene-styrene **block** rubber with high  
**1,2 content**)
- IT Styrene-butadiene rubber, properties  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(**hydrogenated**, block; elastomeric oil/polyolefin compn.  
contg. **hydrogenated** butadiene-styrene **block** rubber  
with high **1,2 content**)
- IT 9003-07-0, **Polypropylene**  
RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)  
(5A15; elastomeric oil/polyolefin compn. contg. **hydrogenated**  
butadiene-styrene **block** rubber with high **1,**  
**2 content**)
- IT 108-95-2D, Phenol, derivs., properties  
RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)  
(antioxidant; elastomeric oil/polyolefin compn. contg.  
**hydrogenated** butadiene-styrene **block** rubber with high  
**1,2 content**)
- IT 123-28-4, Dilaurylthiodipropionate 6683-19-8  
RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)  
(elastomeric oil/polyolefin compn. contg. **hydrogenated**  
butadiene-styrene **block** rubber with high **1,**  
**2 content**)
- IT 9003-55-8  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(styrene-butadiene rubber, **hydrogenated**, block; elastomeric  
oil/polyolefin compn. contg. **hydrogenated** butadiene-styrene  
**block** rubber with high **1,2 content**  
)

L14 ANSWER 29 OF 66 CAPLUS COPYRIGHT 2002 ACS

AN 1998:307210 CAPLUS

DN 129:5550

TI Thermoplastic elastomer-based automobile safety airbag covers with  
excellent abrasion and impact resistance and appearance

IN Kobayashi, Kyoko; Ito, Yuichi; Uchiyama, Akira

PA Mitsui Petrochemical Industries, Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 10 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B60R021-20

ICS C08L023-02; C08L023-04; C08L053-02

CC 39-15 (Synthetic Elastomers and Natural Rubber)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10129387	A2	19980519	JP 1996-284426	19961025
AB	The airbag covers are made from compns. comprising (A) 10-50 parts block copolymers having styrene or its deriv. polymer block and isoprene polymer or isoprene-butadiene polymer block contg. .gtoreq.40 mol% (to total isoprene) 1,2- or 3,4-linked isoprene unit or their <b>hydrogenated</b> products, (B) 15-60 parts cryst. polyolefins, (C) 15-50 parts ethylene (I)-.alpha.-olefin copolymers (75-88 mol% I) or I-.alpha.-olefin-nonconjugated diene copolymers (75-88 mol% I), and (D) 0-50 parts crosslinked olefin thermoplastic elastomers contg. cryst. polyolefins and				

olefin rubbers, where  $A + B + C + D = 100$  parts. Thus, a compn. of **hydrogenated** styrene-isoprene-styrene **block** copolymer (the 1,2- or 3,4-link **content** 55 mol%) 30, I-**propylene** block copolymer (8 mol% I) 40, and ethylene-butene-1 rubber 30 parts was pelletized and injection molded to give a test piece showing good impact strength at -30.degree., Taber abrasion 73 mg (1000-g load, 60 rpm, 1000 rotation), and good scratch resistance.

ST thermoplastic elastomer airbag cover impact resistance; styrene isoprene rubber polyolefin blend

IT **EPDM** rubber  
 RL: DEV (Device component use); POF (Polymer in formulation); PRP (Properties); USES (Uses)  
 (ethylene-ethylidenenorbornene-propene; thermoplastic elastomer-based automobile safety airbag covers with good abrasion and impact resistance and appearance)

IT Isoprene-styrene rubber  
 RL: DEV (Device component use); POF (Polymer in formulation); PRP (Properties); USES (Uses)  
 (**hydrogenated**, block, triblock; thermoplastic elastomer-based automobile safety airbag covers with good abrasion and impact resistance and appearance)

IT Abrasion-resistant materials  
 Airbags (protective)  
 Impact-resistant materials  
 (thermoplastic elastomer-based automobile safety airbag covers with good abrasion and impact resistance and appearance)

IT Butylene-ethylene rubber  
 Polyolefins  
 RL: DEV (Device component use); POF (Polymer in formulation); PRP (Properties); USES (Uses)  
 (thermoplastic elastomer-based automobile safety airbag covers with good abrasion and impact resistance and appearance)

IT Thermoplastic rubber  
 RL: DEV (Device component use); PRP (Properties); USES (Uses)  
 (thermoplastic elastomer-based automobile safety airbag covers with good abrasion and impact resistance and appearance)

IT 25087-34-7  
 RL: DEV (Device component use); POF (Polymer in formulation); PRP (Properties); USES (Uses)  
 (butylene-ethylene rubber, thermoplastic elastomer-based automobile safety airbag covers with good abrasion and impact resistance and appearance)

IT 25038-32-8  
 RL: DEV (Device component use); POF (Polymer in formulation); PRP (Properties); USES (Uses)  
 (isoprene-styrene rubber, **hydrogenated**, block, triblock; thermoplastic elastomer-based automobile safety airbag covers with good abrasion and impact resistance and appearance)

IT 25038-36-2, Ethylene-5-ethylidene-2-norbornene-**propylene** copolymer  
 RL: DEV (Device component use); POF (Polymer in formulation); PRP (Properties); USES (Uses)  
 (rubber; thermoplastic elastomer-based automobile safety airbag covers with good abrasion and impact resistance and appearance)

IT 9002-88-4, Polyethylene 9003-07-0, **Polypropylene** 106565-43-9, Ethylene-**propylene** block copolymer  
 RL: DEV (Device component use); POF (Polymer in formulation); PRP (Properties); USES (Uses)  
 (thermoplastic elastomer-based automobile safety airbag covers with good abrasion and impact resistance and appearance)

L14 ANSWER 30 OF 66 CAPLUS COPYRIGHT 2002 ACS  
 AN 1998:211270 CAPLUS  
 DN 128:231424  
 TI Transparent and odorless containers prepared from olefin polymer compositions  
 IN Iishima, Makoto

PA Chisso Corp., Japan  
 SO Jpn. Kokai Tokkyo Koho, 5 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C08L023-14  
 ICS B65D001-09; C08L023-14; C08L053-02  
 CC 38-3 (Plastics Fabrication and Uses)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10087921	A2	19980407	JP 1996-260208	19960909
AB	<p>Title containers showing no whiteness comprise 80-95% cryst. <b>propylene</b> polymers with m.p. 120-145.degree. and 5-20% AB-, ABC-, or ABA-type block copolymers with no.-av. mol. wt. 50,000-600,000 (A = vinyl arom. polymer block; B = conjugated diene polymer block or partially <b>hydrogenated</b> diene-vinyl arom. compd. copolymer block; C = diene-vinyl arom. compd. copolymer block with tapered increase of vinyl arom. compd. ratio), where (vinyl arom. compds.)/(conjugated dienes) = 5-60/40-95, the amts. of vinyl arom. compds. in A and C are 3-50% per total copolymers, the amts. of vinyl arom. compds. in A are .gtoreq.3%, vinyl contents of the dienes in B are .gtoreq.60% with <b>hydrogenation</b> rate of .gtoreq.80%. Thus, 0.7:5.3:94 butene-ethylene-<b>propylene</b> copolymer 95, <b>hydrogenated</b> diene copolymer (AB type with total styrene 10%, styrene in <b>block</b> 4.5%, and <b>vinyl contents</b> in B 80%) 5, tetrakis[methylene(3,5-di-tert-butyl-4-hydroxyhydrocinnamate)]methane 0.1, and hydrotalcite 0.05 part were melt-kneaded, pelletized, and blow-molded to give a container with Haze 31% and no whiteness.</p>				
ST	transparent odorless olefin polymer container; cryst <b>propylene</b> polymer block copolymer blend; whiteness reduced transparent polyolefin container; butene ethylene <b>propylene</b> copolymer blend container; <b>hydrogenated</b> diene block copolymer blend container				
IT	<p>Polymers, uses          RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)          (block, <b>hydrogenated</b>; transparent containers made of compns. of cryst. <b>propylene</b> polymers and <b>hydrogenated</b> conjugated diene block copolymers)</p>				
IT	<p>Containers          Transparent materials          (transparent containers made of compns. of cryst. <b>propylene</b> polymers and <b>hydrogenated</b> conjugated diene block copolymers)</p>				
IT	<p>Polymer blends          RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses)          (transparent containers made of compns. of cryst. <b>propylene</b> polymers and <b>hydrogenated</b> conjugated diene block copolymers)</p>				
IT	<p>61722-01-8, Butene-ethylene-<b>propylene</b> copolymer          RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)          (cryst.; transparent containers made of compns. of cryst. <b>propylene</b> polymers and <b>hydrogenated</b> conjugated diene block copolymers)</p>				
IT	<p>100-42-5D, Styrene, block copolymers with conjugated dienes, <b>hydrogenated</b>          RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)          (transparent containers made of compns. of cryst. <b>propylene</b> polymers and <b>hydrogenated</b> conjugated diene block copolymers)</p>				

L14 ANSWER 31 OF 66 CAPLUS COPYRIGHT 2002 ACS  
 AN 1998:68558 CAPLUS  
 DN 128:155351  
 TI **Hydrogenated** block copolymer compositions  
 IN Takeuchi, Toshikazu; Goto, Kunio; Ono, Toshio  
 PA Japan Synthetic Rubber Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 19 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C08L053-02  
 CC 39-9 (Synthetic Elastomers and Natural Rubber)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10025395	A2	19980127	JP 1996-198541	19960710
AB	<p>The pelletizable compns., useful for modifiers of other thermoplastic resins, comprise (a) .gtoreq.80%-<b>hydrogenated</b> star-block copolymers represented by AnX (A = conjugated diene polymer <b>block</b> contg. .gtoreq.50% conjugated dienes, <b>vinyl link content</b> &lt;90%, difference of vinyl link content between max. and min. values .gtoreq.10%; X = coupling agent residue; n .gtoreq. 3) and (b) .gtoreq.80%-<b>hydrogenated</b> linear block copolymers having block A at a/b wt. ratio of 95/5-50/50 and show polystyrene-converted wt.-av. mol. wt. 50,000-700,000. Thermoplastic elastomer compns. with good phys. properties are obtained by the use of the compns. as rubber components. Thus, living anionic polymn. of 1,3-butadiene with BuLi in cyclohexane/THF, coupling reaction of the resulting polymer with Cl4Si, addn. of benzophenone, and <b>hydrogenation</b> gave a product (mol. wt. 251,000; a/b wt. ratio 80/20; <b>hydrogenation</b> degree 98%) showing good blocking resistance of its pellets.</p>				
ST	<b>hydrogenated</b> block polybutadiene pelletizable				
IT	<p>Butylene-ethylene rubber          RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)          (EBM 2041P; <b>hydrogenated</b> diene block polymers with good blocking resistance of pellets for modifiers of other thermoplastic resins)</p>				
IT	<p>Ethylene-<b>propylene</b> rubber          RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)          (EP 02P; <b>hydrogenated</b> diene block polymers with good blocking resistance of pellets for modifiers of other thermoplastic resins)</p>				
IT	<p>Polyolefin rubber          RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)          (ethylene-octene, Engage EG 8200; <b>hydrogenated</b> diene block polymers with good blocking resistance of pellets for modifiers of other thermoplastic resins)</p>				
IT	<p>Impact-resistant materials          (<b>hydrogenated</b> diene block polymers with good blocking resistance of pellets for modifiers of other thermoplastic resins)</p>				
IT	<p>Butadiene rubber, preparation          Isoprene rubber, preparation          Isoprene-styrene rubber          Styrene-butadiene rubber, preparation          RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); PREP (Preparation); USES (Uses)          (<b>hydrogenated</b>, star-branched; <b>hydrogenated</b> diene block polymers with good blocking resistance of pellets for modifiers of other thermoplastic resins)</p>				
IT	<p>9003-07-0, <b>Polypropylene</b>          RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)          (BJ 6H-MFS, K 5360; <b>hydrogenated</b> diene block polymers with good blocking resistance of pellets for modifiers of other thermoplastic resins)</p>				
IT	<p>25213-02-9, Exact 2010          RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)          (Exact 2010; <b>hydrogenated</b> diene block polymers with good blocking resistance of pellets for modifiers of other thermoplastic resins)</p>				
IT	<p>9003-17-2P          RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP (Properties); PREP (Preparation); USES (Uses)          (butadiene rubber, <b>hydrogenated</b>, star-branched; <b>hydrogenated</b> diene block polymers with good blocking resistance</p>				

of pellets for modifiers of other thermoplastic resins)

IT 25087-34-7  
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
 (butylene-ethylene rubber, EBM 2041P; **hydrogenated** diene  
 block polymers with good blocking resistance of pellets for modifiers  
 of other thermoplastic resins)

IT 9010-79-1  
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
 (ethylene-**propylene** rubber, EP 02P; **hydrogenated**  
 diene block polymers with good blocking resistance of pellets for  
 modifiers of other thermoplastic resins)

IT 9002-88-4, ZF 51 106565-43-9, BC 06C  
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
 (**hydrogenated** diene block polymers with good blocking  
 resistance of pellets for modifiers of other thermoplastic resins)

IT 9003-31-0P  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP  
 (Properties); PREP (Preparation); USES (Uses)  
 (isoprene rubber, **hydrogenated**, star-branched;  
**hydrogenated** diene block polymers with good blocking resistance  
 of pellets for modifiers of other thermoplastic resins)

IT 25038-32-8P  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP  
 (Properties); PREP (Preparation); USES (Uses)  
 (isoprene-styrene rubber, **hydrogenated**, star-branched;  
**hydrogenated** diene block polymers with good blocking resistance  
 of pellets for modifiers of other thermoplastic resins)

IT 26221-73-8, Ethylene-octene copolymer  
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
 (rubber; **hydrogenated** diene block polymers with good blocking  
 resistance of pellets for modifiers of other thermoplastic resins)

IT 9003-55-8P  
 RL: IMF (Industrial manufacture); MOA (Modifier or additive use); PRP  
 (Properties); PREP (Preparation); USES (Uses)  
 (styrene-butadiene rubber, **hydrogenated**, star-branched;  
**hydrogenated** diene block polymers with good blocking resistance  
 of pellets for modifiers of other thermoplastic resins)

L14 ANSWER 32 OF 66 CAPLUS COPYRIGHT 2002 ACS  
 AN 1998:68553 CAPLUS  
 DN 128:154917

TI **Propylene** polymer-based compositions with good impact  
 resistance, rigidity, and fluidity  
 IN Ishikawa, Koji; Kato, Yoshifumi  
 PA Japan Synthetic Rubber Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 7 pp.  
 CODEN: JKXXAF

DT Patent  
 LA Japanese  
 IC ICM C08L023-10  
 ICS C08K007-00; C08L023-00; C08L053-02  
 CC 37-6 (Plastics Manufacture and Processing)  
 Section cross-reference(s): 39

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 10025378	A2	19980127	JP 1996-199692	19960710
AB	The title compns. comprise (A) 30-95% <b>propylene</b> polymers [flexural modulus .gtoreq.8000 kg/cm2 (785 MPa); melt flow rate (MFR; 230.degree., 2.16 kg) .gtoreq.10 g/10 min], (B) 5-70% (on 100 parts of A + B) olefin-based elastomers, (C) 0.1-50 parts <b>hydrogenated</b> block copolymers [wt.-av. mol. wt. (Mw) 10,000-700,000] prepd. by <b>hydrogenating</b> .gtoreq.80% olefinic unsatd. bonds of (1) block copolymers having arom. <b>vinyl</b> compd.-conjugated diene random copolymer <b>blocks</b> and polybutadiene <b>blocks</b> [ <b>content</b> of 1,2-butadiene units .ltoreq.25%] or (2) block copolymers obtained by extending or branching via coupling				



agents, and (D) 0-50 parts inorg. fillers. Thus, a compn. contg. BC 06C (ethylene-**propylene** block copolymer; flexural modulus 16,000 kg/cm<sup>2</sup>; MFR 60 g/10 min) 70, JSR-EP 01NS (ethylene-**propylene** rubber) 30, and a **hydrogenated** block copolymer (prepd. by 98% **hydrogenating** a block copolymer having 70% 85:15 1,3-butadiene-styrene copolymer block and 30% polybutadiene **block**; **content** of 1,2-butadiene units 13% Mw 160,000) 5 parts was mixed, pelletized, and injection-molded to give a test piece having MFR 20 g/10 min, flexural modulus 10,000 kg/cm<sup>2</sup>, and Izod impact strength 25 kg-cm/cm at -30.degree..

ST impact resistance **propylene** polymer compn; rigidity ethylene **propylene** block copolymer compn; fluidity **propylene** copolymer polyolefin rubber compn; **hydrogenated** block copolymer **propylene** polymer compn; styrene butadiene **hydrogenated** block copolymer impact

IT Butylene-ethylene rubber  
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) (JSR-EBM 2041P; compns. contg. **propylene** polymers, olefin elastomers, **hydrogenated** block copolymers, and inorg. fillers)

IT Ethylene-**propylene** rubber  
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) (JSR-EP 01NS, EP 912; compns. contg. **propylene** polymers, olefin elastomers, **hydrogenated** block copolymers, and inorg. fillers)

IT Impact-resistant materials  
 (compns. contg. **propylene** polymers, olefin elastomers, **hydrogenated** block copolymers, and inorg. fillers)

IT Molded plastics, properties  
 Molded plastics, properties  
 RL: PRP (Properties) (thermoplastics; compns. contg. **propylene** polymers, olefin elastomers, **hydrogenated** block copolymers, and inorg. fillers)

IT 25087-34-7  
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) (butylene-ethylene rubber, JSR-EBM 2041P; compns. contg. **propylene** polymers, olefin elastomers, **hydrogenated** block copolymers, and inorg. fillers)

IT 106107-54-4D, 1,3-Butadiene-styrene block copolymer, **hydrogenated** 106565-43-9, BC 06C 110389-01-0D, Butadiene-isoprene-styrene block copolymer, **hydrogenated**  
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) (compns. contg. **propylene** polymers, olefin elastomers, **hydrogenated** block copolymers, and inorg. fillers)

IT 9010-79-1  
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) (ethylene-**propylene** rubber, JSR-EP 01NS, EP 912; compns. contg. **propylene** polymers, olefin elastomers, **hydrogenated** block copolymers, and inorg. fillers)

IT 14807-96-6, Talc, uses  
 RL: MOA (Modifier or additive use); USES (Uses) (filler; compns. contg. **propylene** polymers, olefin elastomers, **hydrogenated** block copolymers, and inorg. fillers)

L14 ANSWER 33 OF 66 CAPLUS COPYRIGHT 2002 ACS  
 AN 1998:65953 CAPLUS  
 DN 128:116172  
 TI Low arene content thermoplastic elastomer/oil/polyolefin composition and compounding this composition  
 IN Djiauw, Lie Khong; Modic, Michael John  
 PA Shell Internationale Research Maatschappij B.V., Neth.  
 SO PCT Int. Appl., 21 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English

IC ICM C08L053-02  
CC 39-9 (Synthetic Elastomers and Natural Rubber)  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9801506	A1	19980115	WO 1997-EP3576	19970702
	W: BR, CA, CN, JP, KR, MX, TR				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	EP 910610	A1	19990428	EP 1997-931791	19970702
	EP 910610	B1	20000315		
	R: BE, DE, ES, FR, GB, IT, NL, SE				
	CN 1224439	A	19990728	CN 1997-196060	19970702
	BR 9710185	A	19990810	BR 1997-10185	19970702
	ES 2143318	T3	20000501	ES 1997-931791	19970702
	JP 2000514123	T2	20001024	JP 1998-504783	19970702
	TW 434292	B	20010516	TW 1997-86109541	19970707
	KR 2000022419	A	20000425	KR 1998-710851	19981230
PRAI	US 1996-675646	A	19960703		
	WO 1997-EP3576	W	19970702		

AB A thermoplastic elastomeric compn. having high softness at low oil content and melt flow comprises a base compn. of (i) 65-90% block copolymer having .gtoreq.2 polyimd. monovinyl arom. end blocks, each having a mol. wt. .ltoreq.20,000, and a mid block of **hydrogenated** polyimd. butadiene where the end blocks constitute <20% of the block copolymer and the block copolymer has a mol. wt. .gtoreq.50,000, (ii) 5-25% paraffinic oil, and (iii) 5-15% cryst. polyolefin having a crystallinity .gtoreq.50%. Thus, a blend of high vinyl **hydrogenated** butadiene-styrene block rubber (18 % styrene) 80, oil (Drakeol 34) 10, and **polypropylene** 10% was extruded, pelletized, and molded into test pieces having room temp. tensile strength 12.7 MPa, elongation at break 631%, MFI 4.1 g/10 min, and compression set (ASTM D395, 70.degree.) 100%; vs. 11.3, 685, 4.2, and 96, resp., for **block** rubber (**vinyl content** 35 mol %, styrene **content** 30%) compn.

ST butadiene styrene block rubber blend; **polypropylene** blend block rubber; softness improved **polypropylene** blend block rubber

IT Styrene-butadiene rubber, properties  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(**hydrogenated**, block, of low styrene content; low arene content thermoplastic elastomer/oil/polyolefin compn. having high softness)

IT Polyolefins  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(low arene content thermoplastic elastomer/oil/polyolefin compn. having high softness)

IT Polymer blends  
RL: PRP (Properties)  
(low arene content thermoplastic elastomer/oil/polyolefin compn. having high softness)

IT 9003-07-0, **Polypropylene**  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(low arene content thermoplastic elastomer/oil/polyolefin compn. having high softness)

IT 9003-55-8  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(styrene-butadiene rubber, **hydrogenated**, block, of low styrene content; low arene content thermoplastic elastomer/oil/polyolefin compn. having high softness)

L14 ANSWER 34 OF 66 CAPLUS COPYRIGHT 2002 ACS  
AN 1998:65952 CAPLUS  
DN 128:116171  
TI High 1,2-content thermoplastic elastomer/oil/polyolefin composition and compounding this composition  
IN Djiauw, Lie Khong; Modic, Michael John  
PA Shell Internationale Research Maatschappij B.V., Neth.  
SO PCT Int. Appl., 26 pp.  
CODEN: PIXXD2

DT Patent  
LA English  
IC ICM C08L053-02  
ICS C08L023-02  
CC 39-9 (Synthetic Elastomers and Natural Rubber)  
FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9801505	A1	19980115	WO 1997-EP3575	19970702
	W: BR, CA, CN, JP, KR, MX, TR				
	RW: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
	CA 2258555	AA	19980115	CA 1997-2258555	19970702
	EP 909294	A1	19990421	EP 1997-931790	19970702
	EP 909294	B1	20000308		
	R: BE, DE, ES, FR, GB, IT, NL, SE				
	CN 1224438	A	19990728	CN 1997-196059	19970702
	BR 9710192	A	19990810	BR 1997-10192	19970702
	ES 2143317	T3	20000501	ES 1997-931790	19970702
	JP 2000514122	T2	20001024	JP 1998-504782	19970702
	KR 2000022418	A	20000425	KR 1998-710850	19981230
PRAI	US 1996-675637	A	19960703		
	WO 1997-EP3575	W	19970702		

AB A thermoplastic elastomeric compn. having high softness and melt flow comprises a base compn. of (i) 15-60% block copolymer having .gtoreq.2 polyimd. monovinyl arom. end blocks, each having a mol. wt. .gtoreq.20,000, and a mid block of **hydrogenated** polyimd. butadiene where .gtoreq.51 mol % of the butadiene is polyimd. at the 1,2-position, and the block copolymer has a mol. wt. .gtoreq.130,000, (ii) 5-80% paraffinic oil, and (iii) 5-25% cryst. polyolefin having a crystallinity .gtoreq.50%. Thus, a blend of high vinyl **hydrogenated** butadiene-styrene block rubber (75.2 mol % 1,2-butadiene) 40, oil (Drakeol 34) 50, and **polypropylene** 10% was extruded, pelletized, and molded into test pieces having Shore A hardness 28.6, room temp. tensile strength 3.5 MPa, elongation at break 800%, MFI 3.15 g/10 min, and compression set (ASTM D395, 70.degree.) 49.6%; vs. 35.9, 5.5, 831, 1.23, and 56.5, resp., for **block** rubber (**vinyl content** 38 mol %) compn.

ST butadiene styrene block rubber blend; **polypropylene** blend block rubber; softness improved **polypropylene** blend block rubber

IT Polyolefins

RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(high 1,2-content thermoplastic elastomer/oil/polyolefin compn. having high softness)

IT Polymer blends

RL: PRP (Properties)  
(high 1,2-content thermoplastic elastomer/oil/polyolefin compn. having high softness)

IT Styrene-butadiene rubber, properties

RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(**hydrogenated, block, of high vinyl content; high 1,2-content** thermoplastic elastomer/oil/polyolefin compn. having high softness)

IT 9003-07-0, **Polypropylene**

RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(high 1,2-content thermoplastic elastomer/oil/polyolefin compn. having high softness)

IT 9003-55-8

RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(styrene-butadiene rubber, **hydrogenated, block, of high vinyl content; high 1,2-content** thermoplastic elastomer/oil/polyolefin compn. having high softness)

L14 ANSWER 35 OF 66 CAPLUS COPYRIGHT 2002 ACS

AN 1997:754448 CAPLUS

DN 128:4352

TI Manufacture of polymer compositions with improved thermal-creep resistance

IN Sakata, Minoru; Shoji, Osamu

PA Asahi Chemical Industry Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 7 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C08L023-10  
 ICS C08L023-10; C08L053-02; C08L071-12  
 CC 37-6 (Plastics Manufacture and Processing)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09302167	A2	19971125	JP 1996-137757	19960509
AB	<p>Title compns. are composed of (A) 10-55% polyoxyphenylenes, (C) 45-90% <b>propylene</b> polymers at A + C 100 parts, and (B) 5-30 parts <b>hydrogenated</b> block copolymers prep'd. by <b>hydrogenation</b> of block copolymers (1,2-vinyl bond or 3,4-vinyl bond <b>content</b> 56-80%) comprising <b>blocks</b> based on .gtoreq.1 vinyl arom. compds. and blocks based on .gtoreq.1 conjugated diene compds. and are manuf'd. by mixing (C) with melt-kneaded products of (A) and (B) and further melt-kneading the mixts. Thus, 40 parts polyoxyphenylene (obtained by oxidn.-polymn. of 2,6-xylenol) and 10 parts <b>hydrogenated</b> butadiene-styrene <b>block</b> copolymer [contg. 42% styrene; 1,2-vinyl bond <b>content</b> (before <b>hydrogenation</b>) 74%] were melt-kneaded, mixed with 60 parts <b>polypropylene</b>, further melt-kneaded, and pelletized to give a compn. showing bending strength 16,000 kg/cm<sup>2</sup>, Izot impact strength 38 kg-cm/cm, heat distortion temp. under 18.6 kg/cm<sup>2</sup> 108.degree., and good thermal creep resistance.</p>				
ST	<p>thermal creep resistance polyoxyphenylene <b>polypropylene</b>; <b>hydrogenated</b> block copolymer polyoxyphenylene <b>polypropylene</b> blend</p>				
IT	<p>Polyoxyphenylenes          RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); PREP (Preparation); USES (Uses)          (manuf. of polyoxyphenylene-<b>propylene</b> polymer-<b>hydrogenated</b> block copolymer blends with improved thermal creep resistance)</p>				
IT	<p>Heat-resistant materials          (prepn. of polyoxyphenylene/<b>polypropylene</b>-based polymer compns. with good impact, heat, and thermal-creep resistances, rigidity, and miscibility)</p>				
IT	<p>Plastics, properties          RL: PRP (Properties)          (prepn. of polyoxyphenylene/<b>polypropylene</b>-based polymer compns. with good impact, heat, and thermal-creep resistances, rigidity, and miscibility)</p>				
IT	<p>24938-67-8P, Poly(2,6-dimethyl-1,4-phenylene ether), sru 25134-01-4P, 2,6-Xylenol homopolymer          RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); PREP (Preparation); USES (Uses)          (prepn. of polyoxyphenylene/<b>polypropylene</b>-based polymer compns. with good impact, heat, and thermal-creep resistances, rigidity, and miscibility)</p>				
IT	<p>9003-07-0, <b>Polypropylene</b> 106107-54-4D, Butadiene-styrene block copolymer, <b>hydrogenated</b>          RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)          (prepn. of polyoxyphenylene/<b>polypropylene</b>-based polymer compns. with good impact, heat, and thermal-creep resistances, rigidity, and miscibility)</p>				

L14 ANSWER 36 OF 66 CAPLUS COPYRIGHT 2002 ACS  
 AN 1997:664294 CAPLUS  
 DN 127:308113  
 TI Thermoplastic polymer compositions with improved impact resistance and mechanical properties  
 IN Ishikawa, koji; Kato, Yoshifumi  
 PA Japan Synthetic Rubber Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM C08L023-08  
ICS C08L023-08; C08L023-16; C08L025-02; C08L053-02  
CC 37-6 (Plastics Manufacture and Processing)  
Section cross-reference(s): 38, 39

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09263663	A2	19971007	JP 1996-95928	19960327
AB	Title compns. comprise 100 parts mixts. contg. (A) 30-95% styrene polymers and (B) 5-70% ethylene-based olefin elastomers and (C) 0.1-50 parts .gtoreq.80%- <b>hydrogenated</b> block copolymers, with wt.-av. mol. wt. 10,000-700,000, comprising arom. <b>vinyl</b> compd. polymer <b>blocks</b> and polybutadiene <b>blocks</b> with 1, 2-bond <b>content</b> <20%. Thus, isotactic polystyrene 90, EP 07P 10, and <b>hydrogenated</b> butadiene-styrene block copolymer 3 parts were mixed, pelletized, and injection molded to give a test piece showing Izod impact strength 4.4 kg-cm/cm and flexural modulus 23.7 .times. 104 kg/cm2.				
ST	styrene polymer blend polyolefin rubber impactproofing; butadiene styrene <b>hydrogenated</b> block copolymer blend; ethylene <b>propylene</b> elastomer blend styrene polymer				
IT	Ethylene- <b>propylene</b> rubber RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses) (EP 07P; styrene polymer-polyolefin elastomer blends with improved impact resistance)				
IT	Impact-resistant materials (styrene polymer-polyolefin elastomer blends with improved impact resistance)				
IT	Polyolefin rubber RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses) (styrene polymer-polyolefin elastomer blends with improved impact resistance)				
IT	Polymer blends RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses) (styrene polymer-polyolefin elastomer blends with improved impact resistance)				
IT	9010-79-1 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses) (ethylene- <b>propylene</b> rubber, EP 07P; styrene polymer-polyolefin elastomer blends with improved impact resistance)				
IT	106107-54-4D, Butadiene-styrene block copolymer, <b>hydrogenated</b> 110389-01-0D, Butadiene-isoprene-styrene block copolymer, <b>hydrogenated</b> RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses) (styrene polymer-polyolefin elastomer blends with improved impact resistance)				
IT	25086-18-4, Isotactic polystyrene 28325-75-9, Syndiotactic polystyrene RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (styrene polymer-polyolefin elastomer blends with improved impact resistance)				
L14	ANSWER 37 OF 66 CAPLUS COPYRIGHT 2002 ACS				
AN	1997:270544 CAPLUS				
DN	126:252313				
TI	Thermoplastic olefin elastomer compositions with good recycling properties and scratch resistance, no toxic gas emission in burning, and no tacky surface				

IN Kobayashi, Kyoko; Ito, Juichi; Uchama, Akira  
 PA Mitsui Petrochemical Ind, Japan  
 SO Jpn. Kokai Tokkyo Koho, 17 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C08L023-02  
 ICS C08K003-00; C08K005-00; C08K005-20; C08L053-02  
 CC 39-9 (Synthetic Elastomers and Natural Rubber)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09048882	A2	19970218	JP 1995-202609	19950808
AB	The title compns. comprise 20-85 parts cryst. polyolefins, 15-80 parts (hydrogenated) block copolymer comprising styrene (deriv.) polymer block and isoprene polymer or isoprene-butadiene copolymer block with overall 1,2- or 3,4-bonding of isoprene unit .gtoreq.40%, and 0.1-10 phr higher fatty amides. An injection-moldable compn. comprised polypropylene 50, hydrogenated styrene-isoprene-styrene block copolymer (20% styrene; 1,2- or 3,4-bonding content 55%) 50, erucamide 3.0, and hydrogenated styrene-isoprene-styrene block copolymer (30% styrene; 1,2- or 3,4-bonding content 7%) 10 parts.				
ST	polypropylene thermoplastic elastomer compn; hydrogenated isoprene styrene block copolymer; fatty amide thermoplastic elastomer compn; erucamide thermoplastic elastomer compn				
IT	EPDM rubber RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses) (ethylene-ethylidenenorbornene-propene; thermoplastic olefin elastomer compns. with good recycling properties and scratch resistance, no toxic gas emission in burning, and no tacky surface)				
IT	Amides, uses RL: MOA (Modifier or additive use); USES (Uses) (fatty; thermoplastic olefin elastomer compns. with good recycling properties and scratch resistance, no toxic gas emission in burning, and no tacky surface)				
IT	Isoprene-styrene rubber Styrene-butadiene rubber, properties RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses) (hydrogenated, block, triblock; thermoplastic olefin elastomer compns. with good recycling properties and scratch resistance, no toxic gas emission in burning, and no tacky surface)				
IT	Polymer blends Thermoplastic rubber RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses) (thermoplastic olefin elastomer compns. with good recycling properties and scratch resistance, no toxic gas emission in burning, and no tacky surface)				
IT	Naphthenic oils Paraffin oils RL: MOA (Modifier or additive use); USES (Uses) (thermoplastic olefin elastomer compns. with good recycling properties and scratch resistance, no toxic gas emission in burning, and no tacky surface)				
IT	Butylene-ethylene rubber RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses) (thermoplastic olefin elastomer compns. with good recycling properties and scratch resistance, no toxic gas emission in burning, and no tacky surface)				
IT	25087-34-7 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or				

- engineered material use); USES (Uses)  
 (butylene-ethylene rubber, thermoplastic olefin elastomer compns. with good recycling properties and scratch resistance, no toxic gas emission in burning, and no tacky surface)
- IT 25038-32-8  
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
 (isoprene-styrene rubber, **hydrogenated**, block, triblock; thermoplastic olefin elastomer compns. with good recycling properties and scratch resistance, no toxic gas emission in burning, and no tacky surface)
- IT 25038-36-2, Ethylene-ethylidenenorbornene-**propylene** copolymer  
 25087-34-7 105729-79-1D, Isoprene-styrene block copolymer, **hydrogenated**  
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
 (rubber; thermoplastic olefin elastomer compns. with good recycling properties and scratch resistance, no toxic gas emission in burning, and no tacky surface)
- IT 9003-55-8  
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
 (styrene-butadiene rubber, **hydrogenated**, block, triblock; thermoplastic olefin elastomer compns. with good recycling properties and scratch resistance, no toxic gas emission in burning, and no tacky surface)
- IT 110-31-6, Ethylenebisoleamide 112-84-5, Erucamide 301-02-0, Oleamide  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (thermoplastic olefin elastomer compns. with good recycling properties and scratch resistance, no toxic gas emission in burning, and no tacky surface)
- IT 9003-07-0, **Polypropylene** 9010-79-1, Ethylene-**propylene** copolymer  
 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses)  
 (thermoplastic olefin elastomer compns. with good recycling properties and scratch resistance, no toxic gas emission in burning, and no tacky surface)

L14 ANSWER 38 OF 66 CAPLUS COPYRIGHT 2002 ACS

AN 1997:204614 CAPLUS

DN 126:200262

TI Heat- and impact-resistant stiff compositions containing **propylene** polymers, polyoxyphenylenes, and **hydrogenated** conjugated diene block copolymers as compatibilizers

IN Shoji, Osamu; Akyama, Yoshikuni

PA Asahi Chemical Ind, Japan

SO Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08L023-10

ICS C08L023-10; C08L053-02; C08L071-12

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 39

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09012799	A2	19970114	JP 1995-184986	19950629
AB	Title compns., which show good toughness or elongation even after exposure to heat, contain (A) (a-1) <b>propylene</b> (I) polymers with m.p. .gtoreq.163.degree. whose I homopolymer fraction has cryst. phase content .gtoreq.96% measured by free induction decay (FID) by pulse NMR, (a-2) I polymers with m.p. 155 to <163.degree. whose I homopolymer fraction has cryst. phase content 93 to <96% (the total wt. of a-1 and a-2 is 30-90%), (B) 10-70% polyoxyphenylenes, (C) high-vinyl <b>hydrogenated</b> block copolymers comprising .gtoreq.1 arom. vinyl polymer-based block (AVB) and				

.gtoreq.1 conjugated diene polymer **block** (CDB) with vinyl bond content 65-80%, and (D) optional low-vinyl **hydrogenated** block copolymers comprising .gtoreq.1 AVB and .gtoreq.1 CDB with vinyl bond content 20 to <65%, where the wt. ratio of (a-1)/(a-2) is (95/5)-(10-/90), C/D (95/5)-(5/95), and (A + B):(C + D) 100:(1-30). Thus, I homopolymer (m.p. 169.degree., cryst. phase content 97.3%) 66, I homopolymer (m.p. 160.degree., cryst. phase content 93.5%) 4, poly(2,6-xylenol) (reduced viscosity 0.54) 30, and **hydrogenated** butadiene-styrene block copolymer (no.-av. mol. wt. 65,000) 10 parts were melt kneaded, pelletized, injection molded, and heated at 80.degree. for 48 h to show tensile strength 410 kg/cm<sup>2</sup>, elongation at break 90%, flexural modulus 15,800 kg/cm<sup>2</sup>, and no interlayer peeling.

ST heat impact resistance **polypropylene** polyoxyphenylene blend; compatibilizer **hydrogenated** conjugated diene block copolymer; stiffness polyxylenol blend **polypropylene** cryst phase; vinyl rich butadiene styrene copolymer compatibilizer

IT Heat-resistant materials  
Impact-resistant materials  
Polymer blend compatibilizers  
(heat- and impact-resistant cryst. **polypropylene** -polyoxyphenylene blends contg. high-vinyl bond **hydrogenated** block copolymers as compatibilizers)

IT Polyoxyphenylenes  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(heat- and impact-resistant cryst. **polypropylene** -polyoxyphenylene blends contg. high-vinyl bond **hydrogenated** block copolymers as compatibilizers)

IT Polymer blends  
RL: PRP (Properties)  
(heat- and impact-resistant cryst. **polypropylene** -polyoxyphenylene blends contg. high-vinyl bond **hydrogenated** block copolymers as compatibilizers)

IT Styrene-butadiene rubber, properties  
RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)  
(**hydrogenated**, block; heat- and impact-resistant cryst. **polypropylene**-polyoxyphenylene blends contg. high-vinyl bond **hydrogenated** block copolymers as compatibilizers)

IT 9003-07-0, **Polypropylene** 24938-67-8, 2,6-Xylenol homopolymer, sru 25134-01-4, 2,6-Xylenol homopolymer  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(heat- and impact-resistant cryst. **polypropylene** -polyoxyphenylene blends contg. high-vinyl bond **hydrogenated** block copolymers as compatibilizers)

IT 9003-55-8  
RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses)  
(styrene-butadiene rubber, **hydrogenated**, block; heat- and impact-resistant cryst. **polypropylene**-polyoxyphenylene blends contg. high-vinyl bond **hydrogenated** block copolymers as compatibilizers)

L14 ANSWER 39 OF 66 CAPLUS COPYRIGHT 2002 ACS  
AN 1997:204613 CAPLUS  
DN 126:200261  
TI Heat- and impact-resistant stiff compositions containing **propylene** polymers, polyoxyphenylenes, and **hydrogenated** conjugated diene block copolymers as compatibilizers  
IN Akyama, Yoshikuni; Sasaya, Eiji  
PA Asahi Chemical Ind, Japan  
SO Jpn. Kokai Tokkyo Koho, 10 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM C08L023-10  
ICS C08L023-10; C08L053-02; C08L071-12  
CC 37-6 (Plastics Manufacture and Processing)  
Section cross-reference(s): 39  
FAN.CNT 1



	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09012800	A2	19970114	JP 1995-185013	19950629
AB	<p>Title compns., which show good toughness or elongation even after exposure to heat, contain (A) (a-1) <b>propylene</b> (I) polymers with m.p. .gtoreq.163.degree. whose I homopolymer fraction has cryst. phase content .gtoreq.96% measured by free induction decay (FID) by pulse NMR, (a-2) I polymers with m.p. 155 to &lt;163.degree. whose I homopolymer fraction has cryst. phase content 93 to &lt;96% (the total wt. of a-1 and a-2 is 30-90%), (B) 10-70% polyoxyphenylenes, and (C) block copolymers manufd. by selective <b>hydrogenation</b> (<b>hydrogenation</b> 65 to &lt;80%) of copolymers comprising .gtoreq.1 arom. vinyl polymer-based block and .gtoreq.1 conjugated diene polymer <b>block</b> with 1, 2- or 3,4-vinyl bond <b>content</b> 65-75%, where the wt. ratio of (a-1)/(a-2) is (95/5)-(10-/90) and (A + B):C 100:(5-30). Thus, I homopolymer (m.p. 168.degree., cryst. phase content 97.1%) 50, I homopolymer (m.p. 159.degree., cryst. phase content 93.3%) 10, poly(2,6-xyleneol) (reduced viscosity 0.31) 40, and selectively <b>hydrogenated</b> butadiene-styrene block copolymer (no.-av. mol. wt. 64,000) 7 parts were melt kneaded, pelletized, injection molded, and heated at 80.degree. for 48 h to show tensile strength 420 kg/cm2, elongation at break 100%, flexural modulus 18,000 kg/cm2, and no interlayer peeling.</p>				
ST	<p>heat impact resistance <b>polypropylene</b> polyoxyphenylene blend; compatibilizer <b>hydrogenated</b> conjugated diene block copolymer; stiffness polyxylenol blend <b>polypropylene</b> cryst phase; selectively <b>hydrogenated</b> butadiene styrene copolymer compatibilizer</p>				
IT	<p>Heat-resistant materials Impact-resistant materials Polymer blend compatibilizers (heat- and impact-resistant cryst. <b>polypropylene</b> -polyoxyphenylene blends contg. selectively <b>hydrogenated</b> block copolymers as compatibilizers)</p>				
IT	<p>Polyoxyphenylenes RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) (heat- and impact-resistant cryst. <b>polypropylene</b> -polyoxyphenylene blends contg. selectively <b>hydrogenated</b> block copolymers as compatibilizers)</p>				
IT	<p>Polymer blends RL: PRP (Properties) (heat- and impact-resistant cryst. <b>polypropylene</b> -polyoxyphenylene blends contg. selectively <b>hydrogenated</b> block copolymers as compatibilizers)</p>				
IT	<p>Styrene-butadiene rubber, properties RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses) (<b>hydrogenated</b>, block; heat- and impact-resistant cryst. <b>polypropylene</b>-polyoxyphenylene blends contg. selectively <b>hydrogenated</b> block copolymers as compatibilizers)</p>				
IT	<p>9003-07-0, <b>Polypropylene</b> 24938-67-8, 2,6-Xyleneol homopolymer, sru 25134-01-4, 2,6-Xyleneol homopolymer RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) (heat- and impact-resistant cryst. <b>polypropylene</b> -polyoxyphenylene blends contg. selectively <b>hydrogenated</b> block copolymers as compatibilizers)</p>				
IT	<p>9003-55-8 RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses) (styrene-butadiene rubber, <b>hydrogenated</b>, block; heat- and impact-resistant cryst. <b>polypropylene</b>-polyoxyphenylene blends contg. selectively <b>hydrogenated</b> block copolymers as compatibilizers)</p>				
L14	ANSWER 40 OF 66 CAPLUS COPYRIGHT 2002 ACS				
AN	1997:204612 CAPLUS				
DN	126:200260				
TI	Heat- and impact-resistant stiff compositions containing <b>propylene</b> polymers, polyoxyphenylenes, and <b>hydrogenated</b> conjugated diene				

block copolymers as compatibilizers  
 IN Shoji, Osamu; Akyama, Yoshikuni  
 PA Asahi Chemical Ind, Japan  
 SO Jpn. Kokai Tokkyo Koho, 9 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C08L023-10  
 ICS C08L023-10; C08L053-02; C08L071-12  
 CC 37-6 (Plastics Manufacture and Processing)  
 Section cross-reference(s): 39  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09012804	A2	19970114	JP 1995-184987	19950629
AB	Title compns., which show good toughness or elongation even after exposure to heat, contain 30-90% <b>propylene</b> (I) polymers, 10-70% polyoxyphenylenes, and 1-30 parts (vs. 100 parts total of the above polymers) copolymers manufd. by <b>hydrogenation</b> of block copolymers comprising .gtoreq.2 arom. vinyl polymer blocks and .gtoreq.2 conjugated diene polymer <b>blocks</b> with 1,2- or 3,4-vinyl bond <b>content</b> 65-80%. The <b>hydrogenated</b> block copolymers are terminated by the diene polymer block. Thus, I homopolymer (m.p. 169.degree., cryst. phase content 97.3%) 50, I homopolymer (m.p. 160.degree., cryst. phase content 93.5%) 20, poly(2,6-xylenol) (reduced viscosity 0.54) 30, and polystyrene- <b>hydrogenated</b> polybutadiene-polystyrene- <b>hydrogenated</b> polybutadiene block copolymer (no.-av. mol. wt. 122,000) 10 parts were melt kneaded, pelletized, injection molded, and heated at 80.degree. for 48 h to show tensile strength 410 kg/cm <sup>2</sup> , elongation at break 140%, flexural modulus 15,300 kg/cm <sup>2</sup> , and no interlayer peeling.				
ST	heat impact resistance <b>polypropylene</b> polyoxyphenylene blend; compatibilizer <b>hydrogenated</b> conjugated diene block copolymer; stiffness polyxylenol <b>polypropylene</b> blend compatibilizer; butadiene styrene block copolymer <b>hydrogenated</b> compatibilizer				
IT	Heat-resistant materials Impact-resistant materials Polymer blend compatibilizers (heat- and impact-resistant cryst. <b>polypropylene</b> -polyoxyphenylene blends contg. <b>hydrogenated</b> block copolymers as compatibilizers)				
IT	Polyoxyphenylenes RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) (heat- and impact-resistant cryst. <b>polypropylene</b> -polyoxyphenylene blends contg. <b>hydrogenated</b> block copolymers as compatibilizers)				
IT	Polymer blends RL: PRP (Properties) (heat- and impact-resistant cryst. <b>polypropylene</b> -polyoxyphenylene blends contg. <b>hydrogenated</b> block copolymers as compatibilizers)				
IT	Styrene-butadiene rubber, properties RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses) ( <b>hydrogenated</b> , block; heat- and impact-resistant cryst. <b>polypropylene</b> -polyoxyphenylene blends contg. <b>hydrogenated</b> block copolymers as compatibilizers)				
IT	9003-07-0, <b>Polypropylene</b> 24938-67-8, 2,6-Xylenol homopolymer, sru 25134-01-4, 2,6-Xylenol homopolymer RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) (heat- and impact-resistant cryst. <b>polypropylene</b> -polyoxyphenylene blends contg. <b>hydrogenated</b> block copolymers as compatibilizers)				
IT	9003-55-8 RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses) (styrene-butadiene rubber, <b>hydrogenated</b> , block; heat- and impact-resistant cryst. <b>polypropylene</b> -polyoxyphenylene blends contg. <b>hydrogenated</b> block copolymers as compatibilizers)				

L14 ANSWER 41 OF 66 CAPLUS COPYRIGHT 2002 ACS

AN 1997:120895 CAPLUS

DN 126:132557

TI Skin materials from thermoplastic elastomer compositions

IN Mizuno, Yoshihisa; Nakanishi, Hideo; Yasuda, Tadashi; Kamoshita, Yoichi

PA Japan Synthetic Rubber Co Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C09D153-00

ICS C08L023-08; C08L053-02

CC 39-9 (Synthetic Elastomers and Natural Rubber)

Section cross-reference(s): 38

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08319451	A2	19961203	JP 1995-150899	19950525
AB	Title materials from the compns. with good flexibility, melt flowability, and scratch resistance comprise (a) 10-90 wt.% olefin copolymer rubbers (ethylene content <90 mol%), (b) 1-80 wt.% <b>hydrogenated</b> diene (co)polymers having satd. double bond content in conjugated diene parts .gtoreq.80% and no.-av. mol. wt. 5 .times. 104-70 .times. 104 obtained by <b>hydrogenating</b> (b-1) A-B, A-B-C, or A-B-A block copolymers (A = vinyl arom. compd. polymer block; B = conjugated diene polymer block or vinyl arom. compd.-conjugated diene random copolymer block; C = vinyl arom. compd.-conjugated diene tapered block in which vinyl arom. compd. is gradually increased), (b-2) block copolymers contg. D, E, and F (D = vinyl arom. compd.-based polymer block; E = polymer <b>block</b> mainly contg. conjugated dienes having 1,2-vinyl bond <b>content</b> 25-95%; F = polybutadiene <b>block</b> having 1,2-vinyl bond <b>content</b> <25%), and/or (b-3) G-H-G or G-H block copolymers (G = F; H = conjugated diene polymer block or vinyl arom. compd.-conjugated diene copolymer <b>block</b> having vinyl bond <b>content</b> in conjugated diene part >25%), (c) 5-80 wt.% cryst. C.gtoreq.3 .alpha.-olefin polymers, (d) 5-80 wt.% copolymers comprising .gtoreq.90 mol% ethylene, where a + b + c + d = 100 wt.%, and (e) 0-200 parts (vs. a) mineral oil softeners. A sheet prepd. from the compn. showed high tear strength and scratch resistance.				
ST	skin material thermoplastic elastomer scratch resistance; artificial leather thermoplastic elastomer scratch resistance; olefin rubber skin material; <b>hydrogenated</b> diene copolymer skin material; cryst olefin polymer skin material; ethylene polymer skin material; mineral oil softener skin material				
IT	Ethylene- <del>propylene</del> rubber RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (EP 07P; skin materials from thermoplastic elastomer compns.)				
IT	<b>EPDM</b> rubber RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (EP 181SP; skin materials from thermoplastic elastomer compns.)				
IT	Butylene-ethylene rubber RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (JSR-EBM 2021; skin materials from thermoplastic elastomer compns.)				
IT	Paraffin oils RL: MOA (Modifier or additive use); USES (Uses) (PW 90, softeners; skin materials from thermoplastic elastomer compns.)				
IT	Polyolefins RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (cryst.; skin materials from thermoplastic elastomer compns.)				
IT	<b>EPDM</b> rubber RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)				

(ethylene-ethylidenenorbornene-propene, EP 98A; skin materials from thermoplastic elastomer compns.)

IT Leather substitutes  
(skin materials from thermoplastic elastomer compns.)

IT Linear low density polyethylenes  
Polyolefin rubber  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(skin materials from thermoplastic elastomer compns.)

IT Plastic films  
RL: TEM (Technical or engineered material use); USES (Uses)  
(skin materials from thermoplastic elastomer compns.)

IT Naphthenic oils  
RL: MOA (Modifier or additive use); USES (Uses)  
(softeners; skin materials from thermoplastic elastomer compns.)

IT 106565-43-9, BC 5C  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(BC5C; skin materials from thermoplastic elastomer compns.)

IT 172452-02-7, UF 423  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(UF 423; skin materials from thermoplastic elastomer compns.)

IT 9002-88-4, YK 30  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(YK30; skin materials from thermoplastic elastomer compns.)

IT 25087-34-7  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(butylene-ethylene rubber, JSR-EBM 2021; skin materials from thermoplastic elastomer compns.)

IT 9010-79-1  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(ethylene-~~propylene~~ rubber, EP 07P; skin materials from thermoplastic elastomer compns.)

IT 9010-79-1, Ethylene-~~propylene~~ copolymer 9019-29-8,  
Butylene-ethylene copolymer 25038-36-2, Ethylene-ethylidenenorbornene-propene copolymer 106107-54-4D, Butadiene-styrene block copolymer, **hydrogenated** 186263-90-1D, **hydrogenated** 186321-90-4D, **hydrogenated**  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(skin materials from thermoplastic elastomer compns.)

IT 74-85-1D, Ethene, polymers, uses  
RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses)  
(with .alpha.-olefins, linear low-d.; skin materials from thermoplastic elastomer compns.)

L14 ANSWER 42 OF 66 CAPLUS COPYRIGHT 2002 ACS

AN 1996:761684 CAPLUS

DN 126:60840

TI **Polypropylene** resin compositions for molding with good balance of stiffness, impact strength and moldability

IN Ishikawa, Koji; Yamashita, Satoshi; Hashiguchi, Etsuji; Takemura, Yasuhiko; Kamoshita, Yoichi

PA Japan Synthetic Rubber Co Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 19 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08L023-10

ICS C08K003-00; C08L053-00

CC 37-6 (Plastics Manufacture and Processing)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08245844	A2	19960924	JP 1995-78194	19950309
	JP 3248558	B2	20020121		
AB	The resin compns. comprise (A) 30-95% <b>polypropylenes</b> having flexural modulus >8000 kg/cm <sup>2</sup> (785 MPa) and melt flow rate (MFR; at 230.degree., under a load of 2.16 kg) > 10 g/10 min, (B) 70-5% olefin elastomers, and (C) 0.1-50 phr (of A+B) <b>hydrogenated</b> conjugated diene block polymers having Mw 10,000-700,000 and unequal <b>vinyl contents</b> in individual <b>blocks</b> , i.e., >15% differences, and optionally inorg. fillers. Thus, a blend contg. a <b>polypropylene</b> (MFR 60 g/10 min, flexural modulus 16 kg/cm <sup>2</sup> , Izod impact strength at 23.degree. of 4 kg.cm/cm) 75, an ethylene- <b>propylene</b> copolymer rubber (EP01NS) 25 and a <b>hydrogenated</b> butadiene <b>block</b> polymer (with A <b>block</b> having 1,2- <b>vinyl</b> bond <b>content</b> 16% and B <b>block</b> having 1,2- <b>vinyl</b> bond <b>content</b> 40% in A:B ratio 3:7; Mw 283,000, and <b>hydrogenation</b> rate 98%) 6 parts gave test pieces having the claimed properties.				
ST	impact resistant <b>polypropylene</b> molding compn; stiffness <b>polypropylene</b> molding compn; moldability <b>polypropylene</b> molding compn; ethylene <b>propylene</b> elastomer blend <b>polypropylene</b> molding; olefin elastomer blend <b>polypropylene</b> molding; butadiene block polymer blend molding; conjugated diene block polymer blend molding; <b>hydrogenated</b> diene block polymer blend				
IT	Ethylene- <b>propylene</b> rubber RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) (JSR-EP 01NS, JSR-EP 912; <b>polypropylene</b> resin compns. for molding with good balance of stiffness, impact strength and moldability)				
IT	Polyolefin rubber RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) (ethylene-hexene; <b>polypropylene</b> resin compns. for molding with good balance of stiffness, impact strength and moldability)				
IT	Polyolefin rubber RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) (ethylene-octene; <b>polypropylene</b> resin compns. for molding with good balance of stiffness, impact strength and moldability)				
IT	Butylene-ethylene rubber Molded plastics, properties RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) ( <b>polypropylene</b> resin compns. for molding with good balance of stiffness, impact strength and moldability)				
IT	25087-34-7 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) (butylene-ethylene rubber, <b>polypropylene</b> resin compns. for molding with good balance of stiffness, impact strength and moldability)				
IT	9010-79-1 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) (ethylene- <b>propylene</b> rubber, JSR-EP 01NS, JSR-EP 912; <b>polypropylene</b> resin compns. for molding with good balance of stiffness, impact strength and moldability)				
IT	106-99-0D, 1,3-Butadiene, block polymer, <b>hydrogenated</b> , properties 9003-07-0, <b>Polypropylene</b> 109264-12-2D, 1,3-Butadiene-isoprene block copolymer, <b>hydrogenated</b> RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) ( <b>polypropylene</b> resin compns. for molding with good balance of stiffness, impact strength and moldability)				
IT	25087-34-7 25213-02-9, Ethylene-hexene-1 copolymer 26221-73-8, Ethylene-1-octene copolymer RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) (rubber; <b>polypropylene</b> resin compns. for molding with good balance of stiffness, impact strength and moldability)				

L14 ANSWER 43 OF 66 CAPLUS COPYRIGHT 2002 ACS  
AN 1996:563221 CAPLUS  
DN 125:197478  
TI Thermoplastic elastomer compositions  
IN Ishikawa, Koji; Kato, Yoshifumi; Pponma, Tsutomu; Mongaki, Kazumi  
PA Japan Synthetic Rubber Co Ltd, Japan  
SO Jpn. Kokai Tokkyo Koho, 9 pp.  
CODEN: JKXXAF

DT Patent  
LA Japanese  
IC ICM C08L053-02  
ICS C08L053-02; C08L023-02; C08L075-04  
CC 37-6 (Plastics Manufacture and Processing)  
Section cross-reference(s): 39

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08157685	A2	19960618	JP 1994-329800	19941206
AB	The compns., having good moldability, softness and mech. strength after molding, comprise mixts. of 1-98% thermoplastic elastomers and 1-98% (taper) block copolymers of 5-60% arom. vinyl compds. and 40-95% conjugated dienes, optionally, polyolefins. Thus, an extrudate was prepd. from a mixt. of 90% Elastron S90A and 10% <b>hydrogenated</b> conjugated diene-styrene block copolymer (styrene <b>content</b> in <b>block</b> 14%, <b>vinyl content</b> in <b>block</b> 76%).				
ST	styrene diene block copolymer blend; polyurethane blend <b>hydrogenated</b> diene copolymer				
IT	Rubber, urethane, properties RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses) (Elastron S90A; thermoplastic elastomer compns.)				
IT	Rubber, synthetic RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses) (conjugated diene-styrene, block, <b>hydrogenated</b> , thermoplastic elastomer compns.)				
IT	Alkenes, properties RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses) (polymers, thermoplastic elastomer compns.)				
IT	9003-07-0, <b>Polypropylene</b> RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses) (MG 3C; thermoplastic elastomer compns.)				
IT	9002-88-4, YF 30 RL: POF (Polymer in formulation); PRP (Properties); TEM (Technical or engineered material use); USES (Uses) (thermoplastic elastomer compns.)				

L14 ANSWER 44 OF 66 CAPLUS COPYRIGHT 2002 ACS  
AN 1996:473177 CAPLUS  
DN 125:116310  
TI **Hydrogenated** poly(butadiene) block copolymer blends with polyolefin  
IN Marks, Nicolaas; Vermeire, Hans Ferdinand  
PA Shell Internationale Research Maatschappij B.V., Neth.  
SO Eur. Pat. Appl., 7 pp.  
CODEN: EPXXDW

DT Patent  
LA English  
IC ICM C08L053-00  
ICS C08L023-02  
CC 37-6 (Plastics Manufacture and Processing)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI EP 716124 A1 19960612 EP 1995-203106 19951114  
 EP 716124 B1 19990609  
 R: DE, ES, FR, GB, IT, SE  
 JP 09020854 A2 19970121 JP 1995-295607 19951114  
 ES 2132519 T3 19990816 ES 1995-203106 19951114  
 PRAI EP 1994-308453 19941116  
 AB A chem. resistant compn., for automotive under the hood uses, comprises  
 (a) 100 parts **hydrogenated** (poly)butadiene block copolymer BDB  
 or [B1E]nx, wherein B and B1 = a substantially linear, substantially pure  
 polyethylene block, having a no.-av. mol. wt. (Mn) 5000-250,000; D and E =  
 substantially linear elastomeric polymer blocks, substantially free from  
 olefinic unsatn., and having a Mn 10,000-400,000, the wt.-av. mol. wt.  
 (Mw)/Mn ratio of the blocks, B, BDB, B1E = <2, and X = a coupling agent  
 residue, and n >2; (b) 20-100 parts predominantly paraffinic and/or  
 naphthenic extender oil; and (c) 20-200 parts a homopolymer or copolymer  
 of olefins having from 2-20 C atoms. Thus a blend of **triblock**  
**hydrogenated** polybutadiene (mid-**block vinyl**  
**content** prior to **hydrogenation** 40%; end **block**  
**vinyl content** prior to **hydrogenation** <10%;  
 mol. wt. 200,000) 100, paraffin oil (Primol 352) 100, and  
**polypropylene** 34 parts was molded into a test piece having machine  
 direction (MD) tensile strength 16.1 MPa, Shore A hardness 66, and MD  
 tensile strength (168 h aging, 70.degree.) 15.8 MPa, Shore A hardness  
 (100.degree.) 66, and room temp. (22 h) oil resistance (tensile strength  
 retention) 94%, elongation 109, and swell 15%, vs. 3.5, 59, 3.6, 59, 72,  
 69, and 28, resp., using Kraton G instead of **hydrogenated**  
 polybutadiene.  
 ST polyolefin blend **hydrogenated** polybutadiene; chem resistance  
**hydrogenated** polybutadiene blend; paraffin oil extender  
**hydrogenated** polybutadiene blend  
 IT Naphthenic oils  
 Paraffin oils  
 RL: PRP (Properties)  
 (chem. resistant **hydrogenated** poly(butadiene) block copolymer  
 blends with polyolefin)  
 IT Chemically resistant materials  
 (**hydrogenated** poly(butadiene) block copolymer blends with  
 polyolefin)  
 IT Rubber, butadiene, properties  
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
 (**hydrogenated**, triblock; chem. resistant **hydrogenated**  
 poly(butadiene) block copolymer blends with polyolefin)  
 IT 9002-88-4, Polyethylene 9003-07-0, **Polypropylene** 9010-79-1,  
 Ethylene-~~propylene~~ copolymer  
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
 (chem. resistant **hydrogenated** poly(butadiene) block copolymer  
 blends with polyolefin)  
 IT 9003-17-2  
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
 (rubber, **hydrogenated**, triblock; chem. resistant  
**hydrogenated** poly(butadiene) block copolymer blends with  
 polyolefin)  
 L14 ANSWER 45 OF 66 CAPLUS COPYRIGHT 2002 ACS  
 AN 1996:473053 CAPLUS  
 DN 125:116650  
 TI Peeling-off structure of disposable diapers and adhesives for the  
 structure  
 IN Arakawa, Masaaki; Takahashi, Makoto  
 PA Nitto Denko Corp, Japan  
 SO Jpn. Kokai Tokkyo Koho, 7 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C08L053-00  
 ICS A61F013-58; A61F005-44  
 CC 38-3 (Plastics Fabrication and Uses)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08113694	A2	19960507	JP 1994-252146	19941018
AB	The structure of the adhesion area of a disposable diaper, where the the diaper and an adhesion object adhere to each other, is improved to reduced the sound caused by peeling off the diaper from the object. The improvement is achieved by using block copolymers selected from a block copolymer of arom. vinyl compds. and conjugated dienes with the <b>content</b> of arom. vinyl compd. <b>block</b> .gtoreq.17 wt.%, a block copolymer with triblock content .gtoreq.90%, and a radial block copolymer with .gtoreq.3 end blocks of arom. vinyl compds. A hot-melt adhesive contg. 100 parts styrene-isoprene-styrene block copolymer (radial type, triblock content 60%, styrene content 25%), 100 parts <b>hydrogenated</b> petroleum resin, and 70 parts liq. petroleum resin was coated (40 .mu.m) on 100-.mu.m film of polyethylene- <b>polypropylene</b> 1:1 blend to give an adhesive tape for diaper.				
ST	diaper adhesive styrene isoprene block copolymer; hot melt adhesive diaper				
IT	Polyesters, uses				
	RL: TEM (Technical or engineered material use); USES (Uses) (adhesive tape for disposable diapers)				
IT	Diapers				
	(disposable, peeling-off structure of disposable diapers and adhesives for the structure)				
IT	Adhesives				
	(hot-melt, adhesives for disposable diapers)				
IT	Rubber, synthetic				
	RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (isoprene-styrene, block, Quintac 3433; adhesives for disposable diapers)				
IT	9002-88-4, Polyethylene 9003-07-0, <b>Polypropylene</b>				
	RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (adhesive tape for disposable diapers)				
IT	105729-79-1, Isoprene-styrene block copolymer				
	RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) (adhesives for disposable diapers)				

L14 ANSWER 46 OF 66 CAPLUS COPYRIGHT 2002 ACS

AN 1996:449304 CAPLUS

DN 125:88289

TI Polyolefin compositions with balanced impact resistance, rigidity, and appearance

IN Yamashita, Satoshi; Hashiguchi, Etsuji; Hasegawa, Minoru; Shibata, Tooru; Ono, Toshio; Takemura, Yasuhiko

PA Japan Synthetic Rubber Co Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08L023-02

ICS C08L053-00

CC 37-6 (Plastics Manufacture and Processing)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08109288	A2	19960430	JP 1995-39356	19950203
PRAI	JP 1994-218276		19940819		
AB	Title compns. comprise (a) 30-95% polyolefins, (b) 5-70% olefin elastomers, and (c) 0.1-50 parts (vs. 100 parts a + b) <b>hydrogenated</b> copolymers [wt.-av. mol. wt. (Mw) 50,000-700,000] contg. .gtoreq.2 polymer blocks comprising conjugated diene compds. and other monomers at 100/0-50/50 ratio and having difference between max. content and min. content of vinyl link-contg. conjugated diene units .gtoreq.15% and <b>hydrogenation</b> degree of olefinic unsatd. link				



.gtoreq.80%. Thus, 300 g 1,3-butadiene (I) was polymd. in cyclohexane in the presence of THF and BuLi, further polymd. with 700 g I with addn. of THF, blended with benzophenone and BuLi, further blended with bis(cyclopentadienyl)titanium dichloride and diethylaluminum chloride, and **hydrogenated** to give an A-B type block polymer (Mw 301,000, **hydrogenation** degree 98%, **vinyl link content** of A **block** 15% and that of B block 80%), 3 parts of which was blended with **polypropylene** 80, ethylene-**propylene**-ethylidenenorbornene rubber 20, and talc 10 parts, kneaded, pelletized, and injection molded to give a test piece showing Izod impact strength 46 kg-cm/cm at +23.degree. and 4.6 at -30.degree., flexural modulus 25.6 .times. 10<sup>-3</sup> kg/cm<sup>2</sup>, and good appearance.

- ST block polybutadiene blend polyolefin impact resistance; **EPDM**  
 rubber blend polyolefin rigidity
- IT Impact-resistant materials  
 (polyolefin compns. with balanced impact resistance, rigidity, and appearance)
- IT Rubber, ethylene-propene  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); PREP (Preparation); USES (Uses)  
 (polyolefin compns. with balanced impact resistance, rigidity, and appearance)
- IT Rubber, synthetic  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); PREP (Preparation); USES (Uses)  
 (butene-ethylene, polyolefin compns. with balanced impact resistance, rigidity, and appearance)
- IT Rubber, synthetic  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); PREP (Preparation); USES (Uses)  
 (ethylene-ethylidenenorbornene-propene, polyolefin compns. with balanced impact resistance, rigidity, and appearance)
- IT Rubber, synthetic  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); PREP (Preparation); USES (Uses)  
 (ethylene-hexene, polyolefin compns. with balanced impact resistance, rigidity, and appearance)
- IT Rubber, synthetic  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); PREP (Preparation); USES (Uses)  
 (ethylene-octene, polyolefin compns. with balanced impact resistance, rigidity, and appearance)
- IT 9003-17-2DP, 1,3-Butadiene homopolymer, **hydrogenated**  
 109264-12-2DP, 1,3-Butadiene-isoprene block copolymer, **hydrogenated**  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); PREP (Preparation); USES (Uses)  
 (polyolefin compns. with balanced impact resistance, rigidity, and appearance)
- IT 9010-79-1P  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); PREP (Preparation); USES (Uses)  
 (rubber, polyolefin compns. with balanced impact resistance, rigidity, and appearance)
- IT 25038-36-2P, Ethylene-ethylidenenorbornene-**propylene** copolymer  
 25087-34-7P, Butene-1-ethylene copolymer 25213-02-9P, Ethylene-hexene-1 copolymer 26221-73-8P, Ethylene-octene-1 copolymer  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); PREP (Preparation); USES (Uses)  
 (rubber; polyolefin compns. with balanced impact resistance, rigidity, and appearance)

PA Ube Industries, Japan  
 SO Jpn. Kokai Tokkyo Koho, 10 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C08L053-00  
 ICS C08K003-34; C08L009-00; C08L023-08; C08L023-16; C08L053-02  
 CC 37-6 (Plastics Manufacture and Processing)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08104791	A2	19960423	JP 1994-242814	19941006
AB	The title compns. contain 60-90% 0.5-8:92-99.5 C2H4-C3H6 block copolymer (boiling heptane insols. .gtoreq.95%; melt flow rate 5-70 g/10 min), 5-20% <b>hydrogenated</b> butadiene <b>block</b> copolymer with specific <b>vinyl content</b> in each <b>block</b> , and 5-35% talc (av. particle diam 3-5 .mu.m, BET surface area 5-13 m2/g, topcut diam. .ltoreq.20 .mu.m). The compns. are lightwt. and rigid, resist heat deformation and impact, and are useful in molded articles with good appearance.				
ST	cryst <b>polypropylene</b> blend molding; <b>hydrogenated</b> butadiene polymer blend; talc blend cryst <b>polypropylene</b>				
IT	Plastics Rubber, ethylene-propene RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) (cryst. <b>polypropylene</b> resin compns. for molded articles)				
IT	Rubber, synthetic RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) ( <b>EPDM</b> , cryst. <b>polypropylene</b> resin compns. for molded articles)				
IT	Rubber, synthetic RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) (butene-ethylene, cryst. <b>polypropylene</b> resin compns. for molded articles)				
IT	Rubber, butadiene-styrene, properties RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) ( <b>hydrogenated</b> , block, cryst. <b>polypropylene</b> resin compns. for molded articles)				
IT	14807-96-6, Talc, properties RL: MOA (Modifier or additive use); PRP (Properties); USES (Uses) (cryst. <b>polypropylene</b> resin compns. for molded articles)				
IT	106-99-0D, Butadiene, <b>hydrogenated</b> block polymers 106565-43-9, Ethylene- <b>propylene</b> block copolymer RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) (cryst. <b>polypropylene</b> resin compns. for molded articles)				
IT	9010-79-1 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) (rubber, cryst. <b>polypropylene</b> resin compns. for molded articles)				
IT	106107-54-4 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) (rubber, <b>hydrogenated</b> , block, cryst. <b>polypropylene</b> resin compns. for molded articles)				

L14 ANSWER 48 OF 66 CAPLUS COPYRIGHT 2002 ACS  
 AN 1996:184476 CAPLUS  
 DN 124:234116  
 TI Thermoplastic resin compositions with balanced rigidity and solvent and impact resistance  
 IN Maeda, Mizuho; Takamatsu, Hideo; Nishikawa, Akira; Nakada, Hiromichi  
 PA Kuraray Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 6 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C08L023-10  
 ICS C08L023-10; C08L053-00; C08L101-00

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08003392	A2	19960109	JP 1995-120672	19950421
PRAI	JP 1994-107932		19940422		
AB	Title compns., useful for automobile interiors and exteriors, etc., comprise 100 parts <b>propylene</b> polymers, 5-1000 parts thermoplastic elastomers, and 5-1800 parts AB(A)n-type <b>hydrogenated</b> block copolymers [A = polybutadiene <b>block</b> with <b>hydrogenation</b> degree .gtoreq.70%, 1,2 -configuration <b>content</b> .ltoreq.30%, and no.-av. mol. wt. (Mn) 2500-100,000; B = isoprene or isoprene-butadiene polymer block with <b>hydrogenation</b> degree .gtoreq.70% and Mn 10,000-200,000; n = 0, 1). Thus, <b>polypropylene</b> 70, a 96.8%- <b>hydrogenated</b> ABA-type block copolymer (A = polybutadiene, Mn 15,000, vinyl link 8.3%; B = polyisoprene, Mn = 70,000, vinyl link 7.9%) 20, and V 0111 (EPR) 10 parts were melt kneaded and press-molded to give test pieces showing flexural modulus 5260 .times. 10-4 kg/cm <sup>2</sup> , Izod impact strength 59 kg-cm/cm at +25.degree. and 60 at -20.degree., and good solvent resistance.				
ST	<b>hydrogenated</b> butadiene isoprene polymer blend <b>polypropylene</b> ; impact resistance <b>polypropylene</b> EPR rubber blend; solvent resistance <b>propylene</b> polymer				
IT	Rubber, ethylene-propene RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) (V 0111; thermoplastic resin compns. with balanced rigidity and solvent and impact resistance)				
IT	Impact-resistant materials (thermoplastic resin compns. with balanced rigidity and solvent and impact resistance)				
IT	Rubber, butadiene-styrene, properties RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) ( <b>hydrogenated</b> , block, triblock, thermoplastic resin compns. with balanced rigidity and solvent and impact resistance)				
IT	Chemically resistant materials (solvent-resistant, thermoplastic resin compns. with balanced rigidity and solvent and impact resistance)				
IT	Plastics RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) (thermo-, thermoplastic resin compns. with balanced rigidity and solvent and impact resistance)				
IT	9010-79-1 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) (rubber, V 0111; thermoplastic resin compns. with balanced rigidity and solvent and impact resistance)				
IT	106107-54-4 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) (rubber, <b>hydrogenated</b> , block, triblock, thermoplastic resin compns. with balanced rigidity and solvent and impact resistance)				
IT	109264-12-2DP, Butadiene-isoprene block copolymer, <b>hydrogenated</b> RL: IMF (Industrial manufacture); POF (Polymer in formulation); PRP (Properties); PREP (Preparation); USES (Uses) (thermoplastic resin compns. with balanced rigidity and solvent and impact resistance)				
IT	9003-07-0, <b>Polypropylene</b> RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) (thermoplastic resin compns. with balanced rigidity and solvent and impact resistance)				
L14	ANSWER 49 OF 66 CAPLUS COPYRIGHT 2002 ACS				
AN	1995:994701 CAPLUS				
DN	124:31211				
TI	<b>Hydrogenated</b> block copolymer and <b>hydrogenated</b> block copolymer composition.				
IN	Hashiguchi, Yoshiharu; Hasegawa, Minoru; Coshima, Kunio; Takemura, Yasuhiko; Higuchi, Yoshiyuki; Takeuchi, Motokazu				
PA	Japan Synthetic Rubber Co., Ltd., Japan				

SO Eur. Pat. Appl., 49 pp.  
 CODEN: EPXXDW  
 DT Patent  
 LA English  
 IC ICM C08F297-02  
 ICS C08L053-00; C08F136-06  
 CC 37-6 (Plastics Manufacture and Processing)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 676425	A1	19951011	EP 1995-302227	19950403
	EP 676425	B1	19980909		
	R: DE, FR, GB				
	JP 07268173	A2	19951017	JP 1994-87278	19940404
	JP 3282364	B2	20020513		
	JP 07268174	A2	19951017	JP 1994-87279	19940404
	US 5596041	A	19970121	US 1995-414230	19950331
PRAI	JP 1994-87278	A	19940404		
	JP 1994-87279	A	19940404		

AB A **hydrogenated** block copolymer or **hydrogenated** block copolymer mixt. consists of (a) **hydrogenated** product of a star-branched block copolymer represented by the structural formula (A-B)<sub>n</sub>X wherein A is a polybutadiene **block** having a 1, 2-vinyl content of less than 25% by wt. and B is a copolymer block contg. 50% by wt. or more of a conjugated diene compd. whose vinyl content is 25% by wt. or more, X is a coupling agent residue and n is an integer of 3 or more, and (b) a **hydrogenation** product of a straight chain block copolymer represented by the structural formula A-B wherein A and B are as defined above, with the wt. ratio of the component (a) to the component (b) being 100/0 to 95/5. A **hydrogenated** block copolymer compn. comprises (A) 1-99 parts above **hydrogenated** block copolymer or **hydrogenated** block copolymer mixt. and (B) 1-99 parts a thermoplastic resin and/or a rubber. The **hydrogenated** block copolymer and **hydrogenated** block copolymer mixt. can be pelletized and improves the impact resistance, heat resistance, stiffness, processability, and appearance of moldings when blended with the thermoplastic resin and provides a thermoplastic elastomer with good mech. properties when blended with the rubber. A typical molding compn. contained **hydrogenated** polybutadiene (prepd. in 2 stages with SiCl<sub>4</sub> as the coupling agent, 1,2-vinyl content 15 and 40% in the products from the 1st and 2nd stages, resp.) 15, **polypropylene** 65, and talc 20 parts.

ST **hydrogenated** diene polymer two stage manuf;  
**polypropylene hydrogenated** polybutadiene blend impact resistant; polybutadiene **hydrogenated** two stage manuf

IT Impact-resistant materials  
 (two-stage-prepd. **hydrogenated** diene polymers for blending with thermoplastic polymers and(or) rubbers for products with good physicomech. properties)

IT Polyamides, uses  
 Polycarbonates, uses  
 Polyesters, uses  
 Polyoxymethylenes, uses  
 Polyoxyphenylenes  
 Polysulfones, uses  
 Polythiophenylenes  
 Rubber, ethylene-propene  
 Rubber, nitrile, uses  
 RL: POF (Polymer in formulation); USES (Uses)  
 (two-stage-prepd. **hydrogenated** diene polymers for blending with thermoplastic polymers and(or) rubbers for products with good physicomech. properties)

IT Plastics, molded  
 RL: PRP (Properties)  
 (two-stage-prepd. **hydrogenated** diene polymers for blending with thermoplastic polymers and(or) rubbers for products with good physicomech. properties)

IT Rubber, synthetic  
 RL: POF (Polymer in formulation); USES (Uses)  
 (EPDM, two-stage-prepd. **hydrogenated** diene polymers  
 for blending with thermoplastic polymers and(or) rubbers for products  
 with good physicomech. properties)

IT Rubber, synthetic  
 RL: POF (Polymer in formulation); USES (Uses)  
 (acrylic, two-stage-prepd. **hydrogenated** diene polymers for  
 blending with thermoplastic polymers and(or) rubbers for products with  
 good physicomech. properties)

IT Rubber, synthetic  
 RL: POF (Polymer in formulation); USES (Uses)  
 (butene-ethylene, two-stage-prepd. **hydrogenated** diene  
 polymers for blending with thermoplastic polymers and(or) rubbers for  
 products with good physicomech. properties)

IT Rubber, butadiene-styrene, uses  
 Rubber, nitrile, uses  
 RL: POF (Polymer in formulation); USES (Uses)  
 (**hydrogenated**, two-stage-prepd. **hydrogenated** diene  
 polymers for blending with thermoplastic polymers and(or) rubbers for  
 products with good physicomech. properties)

IT Rubber, butadiene-styrene, uses  
 RL: POF (Polymer in formulation); USES (Uses)  
 (**hydrogenated**, block, two-stage-prepd. **hydrogenated**  
 diene polymers for blending with thermoplastic polymers and(or) rubbers  
 for products with good physicomech. properties)

IT Alkenes, uses  
 RL: POF (Polymer in formulation); USES (Uses)  
 (polymers, two-stage-prepd. **hydrogenated** diene polymers for  
 blending with thermoplastic polymers and(or) rubbers for products with  
 good physicomech. properties)

IT 106107-54-4  
 RL: POF (Polymer in formulation); USES (Uses)  
 (rubber, **hydrogenated**, block, two-stage-prepd.  
**hydrogenated** diene polymers for blending with thermoplastic  
 polymers and(or) rubbers for products with good physicomech.  
 properties)

IT 9003-18-3 9003-55-8  
 RL: POF (Polymer in formulation); USES (Uses)  
 (rubber, **hydrogenated**, two-stage-prepd. **hydrogenated**  
 diene polymers for blending with thermoplastic polymers and(or) rubbers  
 for products with good physicomech. properties)

IT 9003-18-3 9010-79-1  
 RL: POF (Polymer in formulation); USES (Uses)  
 (rubber, two-stage-prepd. **hydrogenated** diene polymers for  
 blending with thermoplastic polymers and(or) rubbers for products with  
 good physicomech. properties)

IT 25087-34-7, 1-Butene-ethylene copolymer  
 RL: POF (Polymer in formulation); USES (Uses)  
 (rubber; two-stage-prepd. **hydrogenated** diene polymers for  
 blending with thermoplastic polymers and(or) rubbers for products with  
 good physicomech. properties)

IT 9003-17-2DP, Polybutadiene, **hydrogenated** 9003-31-ODP,  
 Polyisoprene, **hydrogenated** 9003-55-8DP, Butadiene-styrene  
 copolymer, **hydrogenated** 9010-98-4DP, Poly(chloroprene),  
**hydrogenated** 25034-65-5DP, Poly(2,3-Dimethyl-1,3-butadiene),  
**hydrogenated** 25038-32-8DP, Isoprene-styrene copolymer,  
**hydrogenated** 25212-15-1DP, Poly(1,3-pentadiene),  
**hydrogenated** 102800-81-7DP, Poly(1,3-hexadiene),  
**hydrogenated** 171890-31-6DP, Poly(4,5-Diethyl-1,3-octadiene),  
**hydrogenated**  
 RL: IMF (Industrial manufacture); POF (Polymer in formulation); PREP  
 (Preparation); USES (Uses)  
 (two-stage-prepd. **hydrogenated** diene polymers for blending  
 with thermoplastic polymers and(or) rubbers for products with good  
 physicomech. properties)

IT 9002-88-4 9003-07-0, **Polypropylene** 9003-53-6

RL: POF (Polymer in formulation); USES (Uses)  
(two-stage-prepd. **hydrogenated** diene polymers for blending  
with thermoplastic polymers and(or) rubbers for products with good  
physicomech. properties)

L14 ANSWER 50 OF 66 CAPLUS COPYRIGHT 2002 ACS  
AN 1995:947313 CAPLUS  
DN 124:88973  
TI Thermoplastic polymer compositions with good impact resistance and  
rigidity  
IN Kamishina, Junji; Kato, Yoshifumi; Nejigaki, Kazumi; Fujinaga, Yoshihisa  
PA Japan Synthetic Rubber Co Ltd, Japan  
SO Jpn. Kokai Tokkyo Koho, 5 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM C08L023-10  
ICS C08K003-00; C08L053-02  
CC 37-6 (Plastics Manufacture and Processing)  
Section cross-reference(s): 38  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07238192	A2	19950912	JP 1994-52682	19940225
AB	The title compns. contain (A) 30-92% <b>polypropylene</b> , (B) 3-50% <b>hydrogenated</b> diene block copolymers with satn. ratio of double bonds of conjugated diene parts .gtoreq.80%, contg. vinyl arom. compd. blocks, vinyl arom. compd.-conjugated diene random copolymer blocks, and optionally vinyl arom. compd.-conjugated diene copolymer taper blocks of which the content of vinyl arom. compds. is higher than other comonomers, and (C) 5-50% inorg. fillers. Thus, K 7090B ( <b>propylene</b> block copolymer) 65, a <b>hydrogenated</b> butadiene-styrene block copolymer 15, and LMS 200 20% were kneaded, pelletized, and injection molded to give a test piece showing impact strength 25 kg-cm/cm and rigidity 23,000 kg/cm2.				
ST	<b>polypropylene</b> blend <b>hydrogenated</b> diene copolymer; impact resistance <b>polypropylene</b> blend; rigidity <b>polypropylene</b> blend diene copolymer				
IT	Impact-resistant materials ( <b>propylene</b> polymer- <b>hydrogenated</b> vinyl arom. compd.-diene block copolymer blends with good impact resistance and rigidity)				
IT	Plastics, molded RL: PRP (Properties); TEM (Technical or engineered material use); USES (Uses) ( <b>propylene</b> polymer- <b>hydrogenated</b> vinyl arom. compd.-diene block copolymer blends with good impact resistance and rigidity)				
IT	14807-96-6, LMS 200, uses RL: TEM (Technical or engineered material use); USES (Uses) (fillers; <b>propylene</b> polymer- <b>hydrogenated</b> vinyl arom. compd.-diene block copolymer blends with good impact resistance and rigidity)				
IT	106107-54-4D, Butadiene-styrene block copolymer, <b>hydrogenated</b> RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses) ( <b>propylene</b> polymer- <b>hydrogenated</b> vinyl arom. compd.-diene block copolymer blends with good impact resistance and rigidity)				
IT	9003-07-0, J 900 172672-29-6, Polypro J 7090b RL: POF (Polymer in formulation); TEM (Technical or engineered material use); USES (Uses) ( <b>propylene</b> polymer- <b>hydrogenated</b> vinyl arom. compd.-diene block copolymer blends with good impact resistance and rigidity)				

L14 ANSWER 51 OF 66 CAPLUS COPYRIGHT 2002 ACS

AN 1995:475786 CAPLUS  
 DN 122:267885  
 TI Thermoplastic elastomer compositions giving moldings with good oil resistance, flexibility, fluidity, and warp recovery at high temperature  
 IN Ogura, Toshiko; Hashimoto, Katsuya; Nishikawa, Akira; Ishii, Masao  
 PA Kuraray Co, Japan  
 SO Jpn. Kokai Tokkyo Koho, 5 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C08L023-02  
 ICS C08L023-02; C08K005-01; C08L021-00; C08L053-02  
 CC 39-9 (Synthetic Elastomers and Natural Rubber)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07011067	A2	19950113	JP 1993-180053	19930625
AB	Title compns. contain (A) thermoplastic elastomers obtained by dispersing highly crosslinked rubbers into polyolefin-based polymers and (B) elastomer-like mixts. from (a) 100 parts block copolymers having .gtoreq.2 polymer blocks mainly contg. vinyl arom. compds. and .gtoreq.1 polymer <b>block</b> mainly contg. conjugated diene compds. ( <b>vinyl</b> arom. compd. <b>content</b> 5-70%; <b>hydrogenation</b> rate of conjugated diene compd. part .gtoreq.70%), (b) 50-500 parts softening agents for nonarom. rubbers, and (c) 10-100 parts polyolefin-based polymers. Thus, 75 parts Santoprene A 201-55 (crosslinked rubber-polyolefin-based thermoplastic elastomer) and 25 parts elastomer-like mixt. [prepd. from Septon 4055 ( <b>hydrogenated</b> block copolymer; styrene content 30%) 100, PW 90 150, and Polypro MA 3 25 parts] were mixed, kneaded at 200.degree., pelletized, and injection-molded at 230.degree. to give a sample having breaking strength 51 kg/cm2, breaking elongation 480%, hardness (JIS A) 50, compression permanent set 31%, and melt viscosity 78,000 P.				
ST	oil resistance thermoplastic elastomer blend; flexibility thermoplastic elastomer blend; fluidity thermoplastic elastomer blend; warp resistant thermoplastic elastomer blend; styrene isoprene rubber <b>hydrogenated</b> blend; polyolefin rubber blend thermoplastic				
IT	Paraffin oils RL: MOA (Modifier or additive use); USES (Uses) (softening agents, PW 90; thermoplastic elastomer compns. giving moldings with good oil resistance, flexibility, fluidity, and warp recovery at high temp.)				
IT	Rubber, synthetic RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) ( <b>EPDM</b> , thermoplastic elastomer compns. giving moldings with good oil resistance, flexibility, fluidity, and warp recovery at high temp.)				
IT	Rubber, synthetic RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) (isoprene-styrene, <b>hydrogenated</b> , block, triblock, thermoplastic elastomer compns. giving moldings with good oil resistance, flexibility, fluidity, and warp recovery at high temp.)				
IT	Chemically resistant materials (oil-resistant, thermoplastic elastomer compns. giving moldings with good oil resistance, flexibility, fluidity, and warp recovery at high temp.)				
IT	25038-32-8, Isoprene-styrene copolymer RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) (rubber; thermoplastic elastomer compns. giving moldings with good oil resistance, flexibility, fluidity, and warp recovery at high temp.)				
IT	9003-07-0, Polypro MA 3 149659-72-3, Santoprene 201-55A RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) (thermoplastic elastomer compns. giving moldings with good oil resistance, flexibility, fluidity, and warp recovery at high temp.)				

DN 122:189389  
 TI **Propylene** polymer compositions and their molded products with excellent flexibility, impact resistance, and appearance  
 IN Katsube, Toraichi; Kakiyama, Ichiro  
 PA Asahi Chemical Ind, Japan  
 SO Jpn. Kokai Tokkyo Koho, 11 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C08L023-10  
 ICS C08L023-10; C08J005-00; C08L009-06; C08L023-04; C08L053-02  
 CC 37-6 (Plastics Manufacture and Processing)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 06329850	A2	19941129	JP 1993-139243	19930519
AB	<p>Comps. comprising cryst. <b>propylene</b> (I) polymers (A), ethylene (II) polymers (B), and <b>hydrogenated</b> styrene (III)-conjugated diene block rubber (C; III content 3-20%, III block content .ltoreq.10%, vinyl link content in the conjugated diene unit .gtoreq.60%) with wt. ratios [(B) + (C)]/(A) (5-70)/(30-95) and (B)/(C) (10-50)/(50-90) and are molded to give molded products having (B)-based dispersed particles with particle size .ltoreq.0.5 .mu.m and the title properties. Thus, a compn. contg. I-II block copolymer 55, Suntec LL-LM 7625 (LLDPE) 15, <b>hydrogenated</b> III-conjugated diene block rubber (III 10%, III block 4%, vinyl link 78%) 30, and B 215 (heat stabilizer) 0.2 parts was kneaded, pelletized, and injection molded to give a test piece showing flexural modulus 1750 kg/cm<sup>2</sup>, Izod impact strength 51 kg-cm/cm at +23.degree., 105 at -20.degree., and 10 at -30.degree., and surface gloss 86%.</p>				
ST	<p><b>polypropylene</b> LLDPE SBR blend flexibility; impact resistance  <b>polypropylene</b> polyethylene blend; styrene diene rubber blend  <b>polypropylene; hydrogenated</b> SBR polyolefin blend</p>				
IT	<p>Impact-resistant materials          (propylene polymer-ethylene polymer-<b>hydrogenated</b> styrene-diene rubber blends for molded products with good flexibility, impact resistance, and gloss)</p>				
IT	<p>Plastics, molded          RL: PRP (Properties)          (propylene polymer-ethylene polymer-<b>hydrogenated</b> styrene-diene rubber blends for molded products with good flexibility, impact resistance, and gloss)</p>				
IT	<p>Rubber, butadiene-styrene, properties          RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)          (<b>hydrogenated, propylene</b> polymer-ethylene polymer-<b>hydrogenated</b> styrene-diene rubber blends for molded products with good flexibility, impact resistance, and gloss)</p>				
IT	<p>Alkenes, properties          RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)          (.alpha.-, polymers, with ethylene, linear-low-d.; <b>propylene</b> polymer-ethylene polymer-<b>hydrogenated</b> styrene-diene rubber blends for molded products with good flexibility, impact resistance, and gloss)</p>				
IT	<p>9003-07-0, <b>Polypropylene</b>          RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)          (Asahi Kasei Polypro M 1700; <b>propylene</b> polymer-ethylene polymer-<b>hydrogenated</b> styrene-diene rubber blends for molded products with good flexibility, impact resistance, and gloss)</p>				
IT	<p>9002-88-4          RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)          (high-d., Suntec HD-J 300; <b>propylene</b> polymer-ethylene polymer-<b>hydrogenated</b> styrene-diene rubber blends for molded products with good flexibility, impact resistance, and gloss)</p>				
IT	<p>74-85-1D, Ethene, polymers with .alpha.-olefins          RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)          (linear-low-d.; <b>propylene</b> polymer-ethylene polymer-<b>hydrogenated</b> styrene-diene rubber blends for molded products</p>				



RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(in impact- and oil-resistant propene polymer-styrene polymer blends)

IT 9010-79-1

RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(rubber, JSR-EP 07P; in impact- and oil-resistant propene  
polymer-styrene polymer blends)

L14 ANSWER 55 OF 66 CAPLUS COPYRIGHT 2002 ACS

AN 1994:272294 CAPLUS

DN 120:272294

TI Butadiene-styrene block copolymer-poly(phenylene ether) compositions

IN Imai, Takateru; Maeda, Minoru; Ishida, Akishi; Teramoto, Toshio

PA Japan Synthetic Rubber Co Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 14 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08L053-02

ICS C08L053-02; C08L023-00; C08L067-02; C08L071-12; C08L077-00;  
C08L101-00

CC 37-6 (Plastics Manufacture and Processing)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 05320471	A2	19931203	JP 1991-100286	19910405
JP 3185193	B2	20010709		

AB The title compns. comprise 1-99% **hydrogenated** block copolymers  
composed of polystyrene block 5-35, block composed of (50-100):(0-50)  
butadiene-comonomer **block** copolymer (1,2-  
**vinyl bond content** of the butadiene part 20-90%) or  
polyisoprene 30-94, and polybutadiene **block** (1,  
2-**vinyl bond content** .ltoreq.15%) 1-35%  
(.gtoreq.90% of the double bonds **hydrogenated**) and 99-1%  
poly(phenylene ether) resins. Thus, 30 parts **hydrogenated**  
styrene-butadiene triblock copolymer (**hydrogenation** 98%; mol.  
wt. 13,5000) was mixed with 70 parts 2,6-xylenol homopolymer to give a  
compn., which showed notched impact strength 31 kg-cm/cm, melt index 20  
g/10 min, and good solvent resistance.

ST **hydrogenated** butadiene styrene block copolymer; polyphenylene  
ether blend block polystyrene; impact resistant butadiene copolymer blend;  
processability butadiene block copolymer blend

IT Polyoxyphenylenes

RL: USES (Uses)

(blends, with **hydrogenated** butadiene-styrene block  
copolymers, with good processability and impact strength)

IT Impact-resistant materials

(**hydrogenated** butadiene-styrene block copolymer blends, with  
poly(phenylene ethers), with good processability)

IT Plastics

RL: USES (Uses)

(**hydrogenated** butadiene-styrene block copolymer blends, with  
poly(phenylene ethers), with good processability, impact-resistant)

IT Polyamides, miscellaneous

Polyesters, miscellaneous

RL: MSC (Miscellaneous)

(**hydrogenated** butadiene-styrene block copolymer-  
poly(phenylene ether) blends contg., impact-resistant)

IT Alkenes, polymers

RL: USES (Uses)

(polymers, **hydrogenated** butadiene-styrene block  
copolymer-poly(phenylene ether) blends contg., impact-resistant)

IT 24938-67-8, 2,6-Xylenol homopolymer, SRU 25134-01-4, 2,6-Xylenol  
homopolymer

RL: USES (Uses)

(blends, with **hydrogenated** butadiene-styrene block  
copolymers, with good processability and impact strength)

IT 24968-12-5, Duranex XD 499 25038-59-9, Unipet RT 543, uses 32131-17-2,

Amilan CM 3006, uses

RL: USES (Uses)

(**hydrogenated** butadiene-styrene block copolymer-  
poly(phenylene ether) blends contg., impact-resistant)

IT 9003-07-0, **Polypropylene**

RL: USES (Uses)

(**hydrogenated** butadiene-styrene block copolymer-  
poly(phenylene ether) blends contg., impact-resistant, MH 8)

IT 9002-88-4, Polyethylene

RL: USES (Uses)

(**hydrogenated** butadiene-styrene block copolymer-  
poly(phenylene ether) blends contg., impact-resistant, Staflene E 791)

IT 86923-57-1, Diarex HF 76

RL: USES (Uses)

(poly(phenylene ether) blends, **hydrogenated** butadiene-styrene  
block copolymer compns. contg.)

IT 9003-53-6, Polystyrene

RL: USES (Uses)

(poly(phenylene ether) blends, **hydrogenated** butadiene-styrene  
block copolymer compns. contg., Toporex 500-51)

IT 106107-54-4D, Butadiene-styrene block copolymer, **hydrogenated**  
110389-01-0D, Butadiene-isoprene-styrene block copolymer,

**hydrogenated**

RL: USES (Uses)

(triblock, blends, with poly(phenylene ethers), with good  
processability and impact strength)

L14 ANSWER 56 OF 66 CAPLUS COPYRIGHT 2002 ACS

AN 1993:672628 CAPLUS

DN 119:272628

TI **Hydrogenated** triblock aromatic vinyl compound-diene rubbers and  
their resin compositions

IN Shibata, Tooru; Teramoto, Toshio; Hashiguchi, Etsuji; Takemura, Yasuhiko

PA Japan Synthetic Rubber Co Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 15 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08F297-04

ICS C08L053-02; C08L101-00

CC 37-6 (Plastics Manufacture and Processing)

Section cross-reference(s): 39

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 05170844	A2	19930709	JP 1992-161711	19920529
	JP 3134504	B2	20010213		
PRAI	JP 1991-155817	A1	19910530		

AB **Hydrogenated** rubbers, useful as modifiers for resins to improve  
softness, adhesion to coatings, and transparency, have no.-av. mol. wt. 4  
.times. 104-7 .times. 105, **hydrogenation** .gtoreq.80%, block A  
formed from .gtoreq.80% arom. vinyl compds., block B formed from  
.gtoreq.80% conjugated dienes (1,2-vinyl configuration **content**  
.gtoreq.70%), and diene-based **block C** (1,2-  
**vinyl** configuration **content** .ltoreq.30%) with  
(10-35):(35-80):(5-40) A/B/C ratio. A **hydrogenated** triblock SBR  
contg. 15:75:10 block A (100% styrene), **block B** (82% butadiene,  
1,2-vinyl configuration-**content**  
100%) and butadiene-based **block C** (1,2-  
**vinyl** configuration **content** 12%) showed good  
**blocking** resistance. A molding of 25:75 this triblock SBR and BC  
03 (**polypropylene**) showed good adhesion to coatings. An  
extruded sheet of 10:90 the triblock SBR and XF 1800 (  
**polypropylene**) showed haze 19%.

ST transparent **hydrogenated** triblock SBR polymer blend; softness  
modifier **hydrogenated** triblock SBR; coating adhesion modifier  
**hydrogenated** triblock SBR; **polypropylene** blend

**hydrogenated** triblock SBR  
 IT Coating materials  
 (hydrogenated arom. vinyl compd.-diene rubber-polymer blends with good adhesion to)  
 IT Transparent materials  
 (polypropylene blends with hydrogenated triblock arom. vinyl compd.-diene rubbers, extrudable)  
 IT Rubber, butadiene-styrene, uses  
 RL: USES (Uses)  
 (hydrogenated, block, triblock, modifiers, for thermoplastic resins, for coating adhesion, softness and transparency improvement)  
 IT Rubber, synthetic  
 RL: USES (Uses)  
 (isoprene-styrene, hydrogenated, block, triblock, modifiers for thermoplastic resins, for adhesion, softness and transparency improvement)  
 IT 9010-79-1 106565-43-9  
 RL: USES (Uses)  
 (coating adhesion and transparency improvers for, hydrogenated triblock arom. vinyl compd.-diene rubbers as)  
 IT 106107-54-4  
 RL: USES (Uses)  
 (rubber, hydrogenated, block, triblock, modifiers, for thermoplastic resins, for coating adhesion, softness and transparency improvement)  
 IT 105729-79-1D, Isoprene-styrene block copolymer, hydrogenated  
 RL: USES (Uses)  
 (rubber, modifiers, for thermoplastic resins, for coating adhesion, softness and transparency improvement)

L14 ANSWER 57 OF 66 CAPLUS COPYRIGHT 2002 ACS

AN 1993:582181 CAPLUS

DN 119:182181

TI Thermoplastic polymer compositions with good impact resistance, flexibility, and transparency

IN Shibata, Tooru; Imai, Takateru; Maeda, Minoru; Teramoto, Toshio

PA Japan Synthetic Rubber Co Ltd, Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08L053-00

ICI C08L053-00, C08L053-02, C08L023-06

CC 37-6 (Plastics Manufacture and Processing)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 05132606	A2	19930528	JP 1991-324058	19911113
	JP 2988080	B2	19991206		

AB Title compns. with good whitening resistance at deformation, contain 70-99 parts polymer component composed of 70-100% cryst. ethylene-propylene block copolymer and 0-30% high-d. polyethylene and 1-30 parts (modified) hydrogenated diene polymers comprising (A) polybutadiene block segment (vinyl bond content .ltoreq.30%) and (B) conjugated diene (co)polymer block segment (prepd. from conjugated dienes or their mixts. with vinyl arom. compds.; vinyl bond content >70%), in linear or branched A(BA)<sub>n</sub> or (AB)<sub>m</sub> form (n, m .gtoreq.1), wherein .gtoreq.90% of the conjugated diene part of the block copolymer is hydrogenated and/or modified by .gtoreq.1 functional group. Thus, 10 parts hydrogenated diene polymer (composed of 12% block prepd. from 1,3-butadiene with vinyl bond content 12% 88% block from 1,3-butadiene with vinyl bond content 80%; 98% hydrogenation) and 90 parts K 7014 (polypropylene) were mixed, melt-kneaded, pelletized, and injection-molded to give a test piece showing Izod impact strength 7.5 kg-cm/cm, Young's flexural modulus 11 .times. 103 kg/cm<sup>2</sup>, and impact-whitening area 8 cm<sup>2</sup>. A sheet prepd. from 10 parts above

hydrogenated diene polymer and 90 parts XF 1800 (**polypropylene**), showed internal haze 10%.

ST **hydrogenated** diene polymer blend transparency; ethylene **propylene** block copolymer blend; HDPE thermoplastic polymer blend; impact resistance thermoplastic polymer blend

IT Transparent materials  
(blends of (modified) **hydrogenated** diene polymers and cryst. ethylene-**propylene** block copolymer and optionally HDPE)

IT Plastics  
RL: USES (Uses)  
(thermo-, blends of (modified) **hydrogenated** diene polymers and cryst. ethylene-**propylene** block copolymer and optionally HDPE, transparent, impact- and whitening-resistant)

IT 9002-88-4, HDPE  
RL: USES (Uses)  
(blends with (modified) **hydrogenated** diene polymers and cryst. ethylene-**propylene** block copolymer, transparent, impact- and whitening-resistant, 4010)

IT 9003-17-2D, **hydrogenated**  
RL: USES (Uses)  
(blends with cryst. ethylene-**propylene** block copolymer and optionally HDPE, transparent, impact- and whitening-resistant)

IT 106565-43-9, Ethylene-**propylene** block copolymer  
RL: USES (Uses)  
(cryst., blends with (modified) **hydrogenated** diene polymers and optionally HDPE, transparent, impact- and whitening-resistant)

L14 ANSWER 58 OF 66 CAPLUS COPYRIGHT 2002 ACS  
AN 1993:540584 CAPLUS  
DN 119:140584  
TI Impact-resistant polyolefin compositions  
IN Sasagawa, Masahiro; Yamamoto, Goro; Ryu, Takumi  
PA Asahi Chemical Ind, Japan  
SO Jpn. Kokai Tokkyo Koho, 8 pp.  
CODEN: JKXXAF

DT Patent  
LA Japanese  
IC ICM C08L023-02  
ICS C08L053-02  
CC 37-6 (Plastics Manufacture and Processing)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 05163388	A2	19930629	JP 1991-295755	19911112
	JP 2513951	B2	19960710		

AB The title compns. with well-balanced low-temp. impact strength and rigidity comprise 50-95 parts polyolefins and 5-50 parts blends contg. (A) 10-40% **hydrogenated** block copolymers composed of .gtoreq.2 blocks of arom. vinyl compds. and blocks of .gtoreq.1 conjugated diene, with **hydrogenation** degree (H) of the dienes .gtoreq.80% and vinyl bond content 40-60% before the **hydrogenation** and (B) 60-90% **hydrogenated** block copolymers composed of .gtoreq.2 blocks of arom. vinyl compds. and blocks of .gtoreq.1 conjugated diene, with no. av. mol. wt. (Mn) >45,000 (lower than that of A), H of the dienes .gtoreq.80%, vinyl bond content 40-60% before the **hydrogenation**, and mean Mn of A and B 50,000-150,000. Thus, a compn. contg. 85 parts M 8619 (**polypropylene**) and 15 parts 35:65 mixt. of 98%-**hydrogenated** butadiene-styrene **tetrablock** copolymer (styrene content 18%, vinyl content 50%, Mn 98,000) and 99%-**hydrogenated** butadiene-styrene **tetrablock** copolymer (styrene content 16%, vinyl content 52%, Mn 80,000) was pelletized and injection molded to give a test piece showing good impact strength at -30.degree. and flexural modulus 11,500 kg/cm2.

ST **hydrogenated** block butadiene styrene polymer blend;  
**polypropylene** blend **hydrogenated** block copolymer; impact strength polyolefin blend

IT Impact-resistant materials  
(polyolefin-**hydrogenated** block polymer blends as)

IT Plastics, molded  
RL: USES (Uses)  
(polyolefin-**hydrogenated** block polymer blends, with good low-temp. impact strength)

IT Alkenes, polymers  
RL: USES (Uses)  
(polymers, **hydrogenated** block copolymer blends, with good low-temp. impact strength)

IT 9003-07-0, **Polypropylene**  
RL: USES (Uses)  
(**hydrogenated** block copolymer blends, M 8619, with good low-temp. impact strength)

IT 106107-54-4D, Butadiene-styrene block copolymer, **hydrogenated**  
RL: USES (Uses)  
(polyolefin blends, with good low-temp. impact strength)

L14 ANSWER 59 OF 66 CAPLUS COPYRIGHT 2002 ACS

AN 1993:518708 CAPLUS

DN 119:118708

TI Ethylene-**propylene** copolymer blends with good impact and whitening resistance and toughness

IN Imai, Takateru; Teramoto, Toshio; Kimura, Kazuhiro; Yamamoto, Hisaki

PA Japan Synthetic Rubber Co Ltd, Japan; Chisso Corp

SO Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08L053-00

ICI C08L053-00, C08L053-02

CC 37-6 (Plastics Manufacture and Processing)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 05059248	A2	19930309	JP 1991-246506	19910902
	JP 3135950	B2	20010219		

AB The title blends comprise an ethylene-**propylene** block copolymer (I) and a **hydrogenated** diene-vinylarene block copolymer. A blend of 97% I (melt index 2.0; d. 0.91) and 3% **hydrogenated** butadiene-styrene block copolymer (10% styrene) having a first styrene block and a mixed block (4.5% styrene in 2nd **block**; 80% **vinyl content** in mixed **block**) was used for injection molding.

ST whitening resistance ethylene propene copolymer; impact resistance ethylene propene copolymer; ethylene **propylene** block copolymer blend; SBR **hydrogenated** blend block polyolefin

IT Impact-resistant materials  
(ethylene-propene block copolymer-**hydrogenated** block SBR blends)

IT Plastics, molded  
RL: USES (Uses)  
(ethylene-propene block copolymer-**hydrogenated** block SBR blends, impact- and whitening-resistant)

IT Discoloration prevention  
(of ethylene-propene block copolymer-**hydrogenated** block SBR blends)

IT Rubber, butadiene-styrene, uses  
RL: USES (Uses)  
(**hydrogenated**, block, ethylene-propene block copolymer blends, impact- and whitening-resistant)

IT 106565-43-9, Ethylene-**propylene** block copolymer  
RL: USES (Uses)

(blends with **hydrogenated** block SBR, impact- and whitening-resistant)

IT 106107-54-4  
RL: USES (Uses)

(rubber, **hydrogenated**, block, ethylene-propene block  
copolymer blends, impact- and whitening-resistant)

L14 ANSWER 60 OF 66 CAPLUS COPYRIGHT 2002 ACS  
AN 1993:409909 CAPLUS  
DN 119:9909  
TI Impact-resistant polyolefin compositions  
IN Sasagawa, Masahiro; Yamamoto, Goro; Ryu, Takumi  
PA Asahi Chemical Ind, Japan  
SO Jpn. Kokai Tokkyo Koho, 13 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM C08L023-00  
ICS C08L053-02  
ICI C08L023-00, C08L053-02  
CC 37-6 (Plastics Manufacture and Processing)  
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 05051494	A2	19930302	JP 1992-23448	19920210
	JP 2513958	B2	19960710		
PRAI	JP 1991-111850		19910516		

AB Title compns. comprise 50-95 parts polyolefins and 5-50 parts copolymers of (A) 40-90% **hydrogenated** block copolymers composed of blocks of .gtoreq.2 arom. vinyl compds. and blocks of .gtoreq.1 conjugated dienes with the **hydrogenation** degree (HD) of the dienes .gtoreq.80% and vinyl bond content 40-60% before the **hydrogenation** and (B) 10-60% **hydrogenated** block copolymers (with the mol. wt. lower than that of A) composed of blocks of .gtoreq.2 arom. vinyl compds. and blocks of .gtoreq.1 conjugated dienes with HD of the dienes .gtoreq.80% and vinyl bond content 40-60% before the **hydrogenation** at the mean of no.-av. mol. wts. (Mn) of A and B being 40,000-200,000 and A/B Mn being 1.1-4.5. Thus, a compn. contg. 90 parts M 8619 ( **polypropylene**) and 10 parts 50:50 mixt. of **hydrogenated** butadiene (I)-styrene (II) **block** copolymer (Mn 106,000, **vinyl content** 57%, HD 98%) and **hydrogenated** I-II **block** copolymer (Mn 36,000, **vinyl content** 50%, HD 96%) was pelletized and injection molded to give a test piece showing good impact resistance at -30.degree. and flexural modulus 11,000 kg/cm2.

ST **hydrogenated** butadiene styrene polymer blend;  
**polypropylene** blend **hydrogenated** block polymer; impact resistance polyolefin blend

IT Impact-resistant materials  
(polyolefin-**hydrogenated** block polymer blends as)

IT Plastics, molded  
RL: USES (Uses)  
(polyolefin-**hydrogenated** block polymer blends, with good impact resistance)

IT Alkenes, polymers  
RL: USES (Uses)  
(polymers, **hydrogenated** block polymer blends, with good impact resistance)

IT 9003-07-0, **Polypropylene**  
RL: USES (Uses)  
(**hydrogenated** block polymer blends, M 8619, with good impact resistance)

IT 106107-54-4DP, Butadiene-styrene block copolymer, **hydrogenated**  
RL: PREP (Preparation)  
(prepn. of, for blending wiht polyolefins for impact-resistant products)

L14 ANSWER 61 OF 66 CAPLUS COPYRIGHT 2002 ACS  
AN 1991:560585 CAPLUS  
DN 115:160585  
TI Impact-resistant thermoplastic resin compositions

IN Motai, Masaaki; Maeda, Minoru; Tagami, Kenji; Teramoto, Toshio  
 PA Japan Synthetic Rubber Co., Ltd., Japan  
 SO Jpn. Kokai Tokkyo Koho, 18 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C08L053-02  
 ICS C08L023-00; C08L023-10; C08L025-04; C08L055-02; C08L067-02;  
 C08L069-00; C08L077-00  
 CC 37-6 (Plastics Manufacture and Processing)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 03024149	A2	19910201	JP 1989-156761	19890621
AB	<p>Title compns. providing moldings of flawless appearance comprise (A) 1-90% <b>hydrogenated</b> diene polymer(s) chosen from (i) polymers (no.-av. mol. wt. 40,000-700,000, &gt;80% <b>hydrogenation</b> of olefinic unsatn.) obtained by <b>hydrogenation</b> of polymers contg. .gtoreq.1 A, B, and C blocks (A = block of &gt;90% vinyl arom. compd.; B = polybutadiene block of 30-90% 1,2-vinyl bond; C = polybutadiene block of &lt;30% 1,2-vinyl bond) at A, B, C <b>block content</b> 10-50, 30-80, and 5-30% or a similar block polymer using a couplers, (ii) polymers (&gt;80% <b>hydrogenation</b> of olefinic unsatn.) obtained by <b>hydrogenation</b> of polymers contg. blocks of .gtoreq.1 vinyl arom. compd. and vinyl arom. compd.-conjugated diene random copolymer blocks, and (iii) polymers contg. &gt;60%-<b>hydrogenated</b> (0-50):(50-100) arom. vinyl compd.-conjugated diene polymer and &gt;30% polymer having isocyanate or isocyanate-derived polar end group; (B) 5-94% thermoplastic polyester and/or thermoplastic polyester elastomer, and (C) 5-94% other thermoplastic polymer. Cyclohexane 2500, butadiene 350, and BuLi 0.50 g were heated at 50.degree. to 31% conversion, treated with 12.5 g THF, heated to 80.degree. to 100% conversion, treated with 150 g styrene, and polymd. for 15 min to give 27.7:50.3:22.0 A (no.-av. mol. wt. 43,000, styrene content 100%)-B (78,000, 1,2-vinyl bond 53%)-C (34,000, 1,2-vinyl bond 12%) block copolymer (155,000) (I) which was then <b>hydrogenated</b> (96% of butadiene portion). An extrusion molding from the <b>hydrogenated</b> I 10, poly(oxy-2,6-dimethyl-p-phenylene) 45, maleic anhydride 0.25, and poly(butylene terephthalate) 45 parts had falling wt. impact strength 450 kg-cm and excellent appearance.</p>				
ST	<p>butadiene styrene block copolymer blend; impact resistant thermoplastic blend; <b>hydrogenated</b> butadiene block copolymer blend; polyester blend impact resistant; polyoxyphenylene blend impact resistant; polybutylene terephthalate blend; rubber polyester blend</p>				
IT	<p>Plastics, molded          Polycarbonates, uses and miscellaneous          Polyesters, uses and miscellaneous          Polyoxyphenylenes          RL: USES (Uses)          (hydrogenated butadiene-styrene block copolymer blends, impact-resistant, moldable)</p>				
IT	<p>Rubber, synthetic          RL: USES (Uses)          (caprolactam-polyethylene glycol, <b>hydrogenated</b> butadiene-styrene block copolymer blends, impact-resistant, moldable)</p>				
IT	<p>584-84-9D, butadiene-styrene copolymer terminated by, <b>hydrogenated</b> 9003-55-8D, Butadiene-styrene copolymer, TDI-terminated, <b>hydrogenated</b> 106107-54-4D, Butadiene-styrene block copolymer, <b>hydrogenated</b>          RL: USES (Uses)          (blends, impact-resistant, moldable)</p>				
IT	<p>116770-96-8, Ethylene-glycidyl methacrylate-methyl methacrylate graft copolymer          RL: USES (Uses)          (compatibilizers, in <b>hydrogenated</b> butadiene-styrene block copolymer blends)</p>				
IT	<p>9003-07-0, <b>Polypropylene</b> 9003-53-6, Polystyrene 9003-56-9,          ABS polymer 24936-68-3, uses and miscellaneous 24938-67-8,</p>				

2,6-Dimethylphenol polymer, SRU 24968-12-5, Butanediol-di-Me terephthalate copolymer, SRU 25038-54-4, Nylon 6, uses and miscellaneous 25134-01-4, 2,6-Dimethylphenol polymer 25971-63-5, Bisphenol A-phosgene copolymer 30965-26-5, Butanediol-dimethyl terephthalate copolymer

RL: USES (Uses)

(**hydrogenated** butadiene-styrene block copolymer blends, impact-resistant, moldable)

IT 108-31-6, 2,5-Furandione, uses and miscellaneous

RL: USES (Uses)

(in **hydrogenated** butadiene-styrene block copolymer blends, impact-resistant, moldable)

IT 9080-41-5, .epsilon.-Caprolactam-polyethylene glycol copolymer

RL: USES (Uses)

(rubber, blends with **hydrogenated** butadiene-styrene block copolymer, impact-resistant, moldable)

L14 ANSWER 62 OF 66 CAPLUS COPYRIGHT 2002 ACS

AN 1988:551035 CAPLUS

DN 109:151035

TI Block copolymer-thermoplastic multilayer tubes

IN Watanabe, Takashi; Hirata, Akira

PA Asahi Chemical Industry Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B32B027-00

ICS B29C047-04

ICI B29K009-06, B29K023-00, B29K025-00

CC 38-3 (Plastics Fabrication and Uses)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 63115739	A2	19880520	JP 1986-261837	19861105
	JP 05079026	B4	19931101		

AB Multilayer profiles with excellent flexibility, abrasion resistance, and rigidity are prep'd. by coextruding (a) **hydrogenated** block copolymer composed of polymer block based on .gtoreq.2 vinyl arom. compds. and polymer block based on .gtoreq.1 conjugated diene compds. and (b) a polymer selected from polyolefin, polystyrene, and ABS polymer. Thus, coextruding **hydrogenated block** copolymer (30% styrene, 30% **vinyl content**, mol. wt. 7 .times. 104) (2.0 mm) and **Propylene** M 7200 (I) (5.0 mm) gave a multilayer profile with Shore D hardness 30, tensile strength 280 kg/cm<sup>2</sup>, elongation >500%, Izod impact strength 20 kg-cm/cm, and Vicat softening point 149.degree., compared with 73, 290, >500, 15, and 149, resp., for a profile from I alone.

ST **hydrogenated** block copolymer thermoplastic profile;

**polypropylene hydrogenated** block copolymer profile;

abrasion resistance plastic multilayer profile

IT Plastics, molded

RL: USES (Uses)

(multilayer profiles of **hydrogenated** vinyl-diene block copolymers and thermoplastics)

IT Abrasion-resistant materials

(multilayer profiles of vinyl-diene block copolymers and thermoplastics)

IT 9003-07-0 9003-53-6, Polystyrene 9003-56-9

RL: USES (Uses)

(multilayer profiles, with **hydrogenated** block copolymer, rigid, with high mech. strength)

IT 100-42-5D, Styrene, block copolymers with vinyl and diene monomers, **hydrogenated**

RL: USES (Uses)

(multilayer profiles, with thermoplastics, rigid, with high mech. strength)



L14 ANSWER 63 OF 66 CAPLUS COPYRIGHT 2002 ACS  
AN 1988:551034 CAPLUS  
DN 109:151034  
TI Block copolymer-thermoplastic multilayer moldings  
IN Watanabe, Takashi; Hirata, Akira  
PA Asahi Chemical Industry Co., Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 5 pp.  
CODEN: JKXXAF

DT Patent  
LA Japanese  
IC ICM B32B027-00  
CC 38-3 (Plastics Fabrication and Uses)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 63115740	A2	19880520	JP 1986-261838	19861105
	JP 05079027	B4	19931101		
AB	Multilayer moldings with excellent flexibility, abrasion resistance, and rigidity are prep'd. by heat-coextruding (a) <b>hydrogenated</b> block copolymer composed of polymer block based on .gtoreq.2 vinyl arom. compds. and polymer block based on .gtoreq.1 conjugated diene compds. and (b) a polymer selected from polyolefin, polystyrene, and ABS polymer. Thus, coextruding <b>hydrogenated block</b> copolymer (30% styrene, 30% <b>vinyl content</b> , mol. wt. 7 .times. 104) as inner layer (2.4 mm) and <b>Polypropylene</b> M 7200 (I) (melt flow index 1.5 g/10 min) as outer layer (3.6 mm) gave a case for videocamera with tensile strength 270 kg/cm <sup>2</sup> , elongation >600, flexural strength 420 kg/cm <sup>2</sup> , heat-distortion temp. 58.degree., and good abrasion resistance, compared with 280, >600, 430, 58, and poor, resp., a I case of thickness of 6 mm.				
ST	block copolymer thermoplastic case videocamera; <b>hydrogenated</b> block copolymer case videocamera; <b>polypropylene</b> case videocamera; abrasion resistance plastic multilayer molding				
IT	Abrasion-resistant materials (multilayer moldings of vinyl-diene block copolymers and thermoplastics, as cases for videocamera)				
IT	Plastics, molded RL: USES (Uses) (multilayer, <b>hydrogenated</b> vinyl-diene block copolymer and thermoplastics)				
IT	Cameras (television, cases for, multilayer moldings of vinyl-diene block copolymers and thermoplastics and)				
IT	9003-07-0 9003-56-9, ABS polymer RL: USES (Uses) (multilayer moldings, with <b>hydrogenated</b> block copolymers, rigid, with high mech. strength, as cases for videocamera)				
IT	100-42-5D, Styrene, block copolymers with vinyl monomers and diene compds., <b>hydrogenated</b> RL: USES (Uses) (multilayer moldings, with thermoplastics, rigid, with high mech. strength, as cases for videocamera)				

L14 ANSWER 64 OF 66 CAPLUS COPYRIGHT 2002 ACS  
AN 1988:551032 CAPLUS  
DN 109:151032  
TI Block copolymer-thermoplastic multilayer tubes  
IN Watanabe, Takashi; Hirata, Akira  
PA Asahi Chemical Industry Co., Ltd., Japan  
SO Jpn. Kokai Tokkyo Koho, 5 pp.  
CODEN: JKXXAF

DT Patent  
LA Japanese  
IC ICM B32B027-00  
CC 38-3 (Plastics Fabrication and Uses)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI JP 63115742 A2 19880520 JP 1986-261841 19861105  
JP 07115434 B4 19951213

AB Multilayer tubes with excellent flexibility, abrasion resistance, and rigidity are prep'd. by coextruding (a) **hydrogenated** block copolymer composed of polymer block based on .gtoreq.2 vinyl arom. compds. and polymer block based on .gtoreq.1 conjugated diene compds. and (b) a polyolefin. Thus, coextruding **hydrogenated block** copolymer (30% styrene, 30% **vinyl content**, mol. wt. 7 .times. 104) as core layer (0.6 mm) and low-d. polyethylene as outer layers (0.2 mm each) gave a 3-ply tube with Shore D hardness 30, tensile strength 270 kg/cm<sup>2</sup>, elongation 600%, and embrittlement temp. <-70.degree., compared with 40, 125, 500, and -20, resp., for PVC single-ply tube.

ST **hydrogenated** block copolymer polyolefin tube; polyethylene **hydrogenated** block copolymer tube; abrasion resistance plastic multilayer tube

IT Paraffin oils

RL: USES (Uses)

(**hydrogenated** block copolymer blends contg., multilayer tubes, with polyolefin, rigid, with high mech. strength)

IT Plastics, molded

RL: USES (Uses)

(multilayer, **hydrogenated** vinyl-diene block copolymer and polyolefin, for tubes)

IT Pipes and Tubes

(multilayer, from vinyl-diene block copolymer and polyolefin, rigid, with high mech. strength)

IT 9003-07-0, **Polypropylene**

RL: USES (Uses)

(**hydrogenated** block copolymer blends contg., multilayer tubes, with polyolefin, rigid, with high mech. strength)

IT 9002-88-4

RL: USES (Uses)

(multilayer tubes, with **hydrogenated** block copolymer, rigid, with high mech. strength)

IT 100-42-5D, Styrene, block copolymers with vinyl monomers and diene compds., **hydrogenated**

RL: USES (Uses)

(multilayer tubes, with polyolefin, rigid, with high mech. strength)

L14 ANSWER 65 OF 66 CAPLUS COPYRIGHT 2002 ACS

AN 1988:551031 CAPLUS

DN 109:151031

TI Block copolymer-thermoplastic multilayer injection moldings

IN Watanabe, Takashi; Hirata, Akira

PA Asahi Chemical Industry Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM B29C045-14

ICS B29C045-16; B32B027-28

ICI B29K023-00, B29K025-00, B29K055-02, B29K096-04, B29L009-00

CC 38-3 (Plastics Fabrication and Uses)

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 63115711	A2	19880520	JP 1986-261839	19861105
JP 04002412	B4	19920117		

AB Multilayer moldings with excellent flexibility, abrasion resistance, and rigidity are prep'd. by injection molding (a) **hydrogenated** block copolymer composed of polymer block based on .gtoreq.2 vinyl arom. compds. and polymer block based on .gtoreq.1 conjugated diene compds. and (b) a polymer selected from polyolefin, polystyrene, and ABS polymer. Injection molding **hydrogenated block** copolymer (I; 30% styrene, 30% **vinyl content**, mol. wt. 5 .times. 104) as outer layer (1.5 mm) and Stylac ABS 183 as inner layer (1.5 mm) gave a 3.0-mm

laminate with Shore D hardness 26, tensile strength 380 kg/cm<sup>2</sup>, elongation 20%, Izod impact strength 10 kg-cm/cm, and Vicat softening temp. 126.degree., compared with 26, 270, 80, non-breaking, and <100, resp., for a 3.0-mm I plate.

- ST **hydrogenated** block copolymer ABS molding; abrasion resistance plastic multilayer molding; rigidity plastic multilayer molding
- IT Abrasion-resistant materials  
(multilayer moldings of vinyl-diene block copolymer and thermoplastics)
- IT Plastics, molded  
RL: USES (Uses)  
(multilayer, **hydrogenated** vinyl-diene block copolymer and thermoplastics)
- IT 100-42-5D, Styrene, block copolymers with vinyl monomers and diene compds., **hydrogenated**  
RL: USES (Uses)  
(multilayer molding, with ABS polymer, rigid, with high mech. strength)
- IT 9003-07-0, **Polypropylene** 9003-53-6, Polystyrene 9003-56-9  
RL: USES (Uses)  
(multilayer moldings, with **hydrogenated** block copolymer, rigid, with high mech. strength)

L14 ANSWER 66 OF 66 CAPLUS COPYRIGHT 2002 ACS

AN 1981:158151 CAPLUS

DN 94:158151

TI Thermoplastic elastomer blends of **hydrogenated** polybutadiene block copolymers with .alpha.-olefin polymers and copolymers

IN Halasa, Adel F.; Carlson, Davis W.; Hall, James E.

PA Firestone Tire and Rubber Co., USA

SO U.S., 8 pp.

CODEN: USXXAM

DT Patent

LA English

IC C08L053-00

NCL 525098000

CC 38-9 (Elastomers, Including Natural Rubber)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 4252914	A	19810224	US 1979-68280	19790820
	EP 26292	A1	19810408	EP 1980-104468	19800729
	EP 26292	B1	19840314		
	R: BE, DE, FR, GB, IT, NL, SE				
	AU 8060927	A1	19810226	AU 1980-60927	19800730
	AU 536295	B2	19840503		
	CA 1140295	A1	19830125	CA 1980-358459	19800818
	JP 56030455	A2	19810327	JP 1980-113083	19800819
	JP 58033255	B4	19830719		
PRAI	US 1979-68280		19790820		

AB Thermoplastic rubbers with good O3 resistance and phys. properties are prepd. by mixing 10-60% cryst. C2-20 .alpha.-olefin (co)polymer with 40-90% **hydrogenated** butadiene diblock rubber (1,4-block contg. .ltoreq.15% 1,2-blocks and 1,2-block contg. .ltoreq.15% 1,4-blocks). Thus, a blend of 60 parts 90%-**hydrogenated** diblock polybutadiene (mol. wt. of 1,2-block 28,000, mol. wt. of 1,4-block 99,000, 1,2-content in 1,4-block 12.2%, 1,4-content in 1,2-block 6.2%) and 40 part isotactic **polypropylene** [25085-53-4] has tensile strength 4408 psi, elongation 778%, tear strength 97.4 kN/M, and flexural modulus 34,953 psi, compared with 734, 200, 33, and 25, 380, resp., for Vistaflex 904C rubber.

- ST butadiene rubber block blend; isotactic **polypropylene** blend; **hydrogenated** butadiene rubber blend; blend rubber thermoplastic
- IT Rubber, butadiene, uses and miscellaneous  
RL: USES (Uses)  
(diblock, **hydrogenated**, thermoplastic blends with **polypropylene**)
- IT 25085-53-4

RL: USES (Uses)  
(blends with **hydrogenated** diblock butadiene rubber,  
thermoplastic)

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L9 ANSWER 2 OF 2 CAPLUS COPYRIGHT 2002 ACS  
 AN 1994:55936 CAPLUS  
 DN 120:55936  
 TI Thermoformable polymer blends resistant to hydrocarbon solvents  
 IN Swartzmiller, Steven B.; Donald, Robert J.; Bonekamp, Jeffrey E.  
 PA Dow Chemical Co., USA  
 SO PCT Int. Appl., 21 pp.  
 CODEN: PIXXD2  
 DT Patent  
 LA English  
 IC ICM C08L025-00  
 ICS C08L051-04  
 CC 37-6 (Plastics Manufacture and Processing)  
 FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	WO 9313168	A1	19930708	WO 1992-US9091	19921027 <--
	W: AU, CA, JP, KR, US				
	RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, SE				
	AU 9229269	A1	19930728	AU 1992-29269	19921027
	AU 659696	B2	19950525		
	EP 617719	A1	19941005	EP 1992-923339	19921027
	R: AT, BE, DE, DK, ES, FR, GB, IT, NL, SE				
	JP 07502556	T2	19950316	JP 1992-511629	19921027
	JP 3275209	B2	20020415	JP 1993-511629	19921027
	US 5334657	A	19940802	US 1992-971921	19921218
PRAI	US 1991-811350	A	19911220		
	US 1992-859207	A2	19920327		
	WO 1992-US9091	A	19921027		
AB	The title blends, resistant to hydrocarbon solvents, esp. fluoro- or chlorofluorohydrocarbons, useful in the manuf. of refrigerator and freezer liners, comprise 45-70 parts impact-modified styrenic monomer 45-70, 15-40 parts ethylene or propylene homopolymer or copolymer with .gtoreq.1 C4-8 .alpha.-olefin 15-40, and styrene-butadiene-styrene (SBS) triblock copolymer compatibilizer 5-25 parts.				
ST	polystyrene high impact blend solvent resistance; refrigerator liner polystyrene polyethylene blend; freezer liner polystyrene polyethylene blend; polyethylene polystyrene blend freezer liner				
IT	Rubber, butadiene-styrene, uses				
	RL: USES (Uses)				
	(block, triblock, polystyrene-polyethylene blends contg., solvent-resistant, thermoformable, for freezer liners)				
IT	Plastics, molded				
	RL: USES (Uses)				
	(thermo-, high-impact polystyrene-polyethylene blends, solvent-resistant, thermoformable, for freezer liners)				
IT	9002-88-4, Polyethylene				
	RL: USES (Uses)				
	(high-impact polystyrene blends, solvent-resistant, thermoformable, for freezer liners)				
IT	9003-53-6, Polystyrene				
	RL: USES (Uses)				
	(high-impact, polyethylene blends, solvent-resistant, thermoformable, for freezer liners)				
IT	106107-54-4				
	RL: USES (Uses)				
	(rubber, block, triblock, polystyrene-polyethylene blends contg., solvent-resistant, thermoformable, for freezer liners)				
IT	106107-54-4, Butadiene-styrene block copolymer				
	RL: USES (Uses)				
	(rubber, triblock, polyethylene blends, solvent-resistant, thermoformable, for freezer liners)				

L2 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2002 ACS  
 AN 1994:632450 CAPLUS  
 DN 121:232450  
 TI Thermoplastic propene polymer-styrene polymer compositions with impact and oil resistance  
 IN Imanishi, Shinichiro; Ikeda, Mitsuru  
 PA Daicel Chem, Japan  
 SO Jpn. Kokai Tokkyo Koho, 4 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C08L023-10  
 ICS C08L023-04; C08L025-04; C08L053-02  
 CC 37-6 (Plastics Manufacture and Processing)  
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FI	JP 06192502	A2	19940712	JP 1992-346355	19921225 <--
AB	The title comps. with good compatibility and moldability contain 100 parts mixt. of 5-95% styrene polymers and 5-95% propene polymers and 0.5-30 parts hydrogenated (.gtoreq.70% of aliph. double bonds) styrene-butadiene-styrene block copolymers (.gtoreq.70% 1,2-vinyl content in butadiene blocks). A mixt. of Nisseki Polypro J 130G (polypropene) 35, Sumibrite 500HG-S (rubber-modified polystyrene) 65, and hydrogenated styrene-butadiene-styrene block copolymer 5 parts gave injection moldings showing Izod impact strength 16.5 kg-cm/cm, elongation 71%, and flexural modulus 13,000 kg/cm2.				
ST	polypropene styrene polymer compatibilizer blend; butadiene styrene copolymer polypropene blend; impact resistance polypropene styrene polymer; oil resistance polypropene styrene polymer; propene polymer styrene resin blend				
IT	Rubber, ethylene-propene RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) (JSR-EP 07P; in impact- and oil-resistant propene polymer-styrene polymer blends)				
IT	Impact-resistant materials (propene polymer-styrene polymer-compatibilizer blends)				
IT	Plastics, molded RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) (propene polymer-styrene polymer-compatibilizer blends with oil and impact resistance)				
IT	Chemically resistant materials (oil-resistant, propene polymer-styrene polymer-compatibilizer blends)				
IT	9003-07-0, Polypropylene RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) (Nisseki Polypro J 130G; in impact- and oil-resistant blends with styrene polymers)				
IT	9003-53-6, Polystyrene RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) (Sumibrite 4; in impact- and oil-resistant propene polymer-styrene polymer blends)				
IT	9003-54-7, Cevian N 9003-56-9, Acrylonitrile-butadiene-styrene copolymer 106107-54-4D, Butadiene-styrene block copolymer, hydrogenated RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) (in impact- and oil-resistant propene polymer-styrene polymer blends)				
IT	9010-79-1 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) (rubber, JSR-EP 07P; in impact- and oil-resistant propene polymer-styrene polymer blends)				

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- with good flexibility, impact resistance, and gloss)
- IT 106565-43-9, Ethylene-**propylene** block copolymer 136363-10-5,  
Suntec LL-LM 7625  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(**propylene** polymer-ethylene polymer-**hydrogenated**  
styrene-diene rubber blends for molded products with good flexibility,  
impact resistance, and gloss)
- IT 9003-55-8  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(rubber, **hydrogenated, propylene** polymer-ethylene  
polymer-**hydrogenated** styrene-diene rubber blends for molded  
products with good flexibility, impact resistance, and gloss)

L14 ANSWER 53 OF 66 CAPLUS COPYRIGHT 2002 ACS  
AN 1995:275439 CAPLUS  
DN 122:107677  
TI Thermoplastic resin compositions for molded products with improved  
appearance and impact resistance  
IN Kamishina, Junji; Kato, Yoshifumi; Fujinaga, Yoshihisa  
PA Japan Synthetic Rubber Co Ltd, Japan  
SO Jpn. Kokai Tokkyo Koho, 6 pp.  
CODEN: JKXXAF  
DT Patent  
LA Japanese  
IC ICM C08L023-02  
ICS C08L023-02; C08L025-02; C08L053-02  
CC 37-6 (Plastics Manufacture and Processing)  
FAN.CNT 1

- |    | PATENT NO.  | KIND | DATE     | APPLICATION NO. | DATE     |
|----|-------------|------|----------|-----------------|----------|
| PI | JP 06271717 | A2   | 19940927 | JP 1993-86730   | 19930322 |
- AB The compns. with good compatibility comprise (A) 100 parts mixts. of 2-98%  
olefin polymers and 2-98% styrene polymers and (B) 2-50 parts  
**hydrogenated** AlBA2-type block copolymers (wt.-av. mol. wt. (Mw)  
200,000-500,000, **hydrogenation** degree of conjugated diene part  
.gtoreq.80%) composed of arom. vinyl polymer (Mw .gtoreq.15,000) block  
(A1), arom. vinyl polymer (Mw .ltoreq.9000) block (A2), and arom. vinyl  
compd.-conjugated diene random copolymer block (B), satisfying the wt.  
ratio of total arom. vinyl compd./total conjugated diene (15/80)-(60/40)  
and vinyl link content in conjugated diene part of B block .gtoreq.60%.  
Thus, a compn. contg. J 5010B (**polypropylene**) 70, Toporex 565  
(polystyrene) 30, and butadiene-styrene (I) block copolymer (I content  
19%, Mw 290,000; A1 block Mw 26,000; A2 block Mw 6000; B  
**block vinyl link content** 78%,  
**hydrogenation** degree 98%) was injection molded to give a test  
piece showing Izod impact strength 15 J/m and good appearance.
- ST **hydrogenated** styrene butadiene polymer compatibilizer;  
**polypropylene** polystyrene blend compatibility; polyolefin  
polystyrene blend compatibility; impact resistance polyolefin polystyrene  
blend
- IT Impact-resistant materials  
(polyolefin-styrene polymer blends compatibilized by  
**hydrogenated** butadiene-styrene block polymers for  
impact-resistant molded products)
- IT Plastics  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(polyolefin-styrene polymer blends compatibilized by  
**hydrogenated** butadiene-styrene block polymers for  
impact-resistant molded products)
- IT Alkenes, properties  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(polymers, polyolefin-styrene polymer blends compatibilized by  
**hydrogenated** butadiene-styrene block polymers for  
impact-resistant molded products)
- IT 9003-53-6, Polystyrene  
RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
(Toporex 565; polyolefin-styrene polymer blends compatibilized by

A1 =  $\Phi$  2/5  
A2 = 9K, 15  
B = Random

**hydrogenated** butadiene-styrene block polymers for impact-resistant molded products)

IT 106107-54-4D, Butadiene-styrene block copolymer, **hydrogenated**  
 RL: MOA (Modifier or additive use); USES (Uses)  
 (polyolefin-styrene polymer blends compatibilized by **hydrogenated** butadiene-styrene block polymers for impact-resistant molded products)

IT 9003-07-0, J 5010B  
 RL: POF (Polymer in formulation); PRP (Properties); USES (Uses)  
 (polyolefin-styrene polymer blends compatibilized by **hydrogenated** butadiene-styrene block polymers for impact-resistant molded products)

L14 ANSWER 54 OF 66 CAPLUS COPYRIGHT 2002 ACS

AN 1994:632450 CAPLUS

DN 121:232450

TI Thermoplastic propene polymer-styrene polymer compositions with impact and oil resistance

IN Imanishi, Shinichiro; Ikeda, Mitsuru

PA Daicel Chem, Japan

SO Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

IC ICM C08L023-10

ICS C08L023-04; C08L025-04; C08L053-02

CC 37-6 (Plastics Manufacture and Processing)

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 06192502	A2	19940712	JP 1992-346355	19921225
AB	The title compns. with good compatibility and moldability contain 100 parts mixt. of 5-95% styrene polymers and 5-95% propene polymers and 0.5-30 parts <b>hydrogenated</b> (.gtoreq.70% of aliph. double bonds) styrene-butadiene-styrene <b>block</b> copolymers (.gtoreq.70% <b>1,2-vinyl content</b> in butadiene <b>blocks</b> ). A mixt. of Nisseki Polypro J 130G (polypropene) 35, Sumibrite 500HG-S (rubber-modified polystyrene) 65, and <b>hydrogenated</b> styrene-butadiene-styrene block copolymer 5 parts gave injection moldings showing Izod impact strength 16.5 kg-cm/cm, elongation 71%, and flexural modulus 13,000 kg/cm2.				
ST	polypropene styrene polymer compatibilizer blend; butadiene styrene copolymer polypropene blend; impact resistance polypropene styrene polymer; oil resistance polypropene styrene polymer; propene polymer styrene resin blend				
IT	Rubber, ethylene-propene RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) (JSR-EP 07P; in impact- and oil-resistant propene polymer-styrene polymer blends)				
IT	Impact-resistant materials (propene polymer-styrene polymer-compatibilizer blends)				
IT	Plastics, molded RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) (propene polymer-styrene polymer-compatibilizer blends with oil and impact resistance)				
IT	Chemically resistant materials (oil-resistant, propene polymer-styrene polymer-compatibilizer blends)				
IT	9003-07-0, <b>Polypropylene</b> RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) (Nisseki Polypro J 130G; in impact- and oil-resistant blends with styrene polymers)				
IT	9003-53-6, Polystyrene RL: POF (Polymer in formulation); PRP (Properties); USES (Uses) (Sumibrite 4; in impact- and oil-resistant propene polymer-styrene polymer blends)				
IT	9003-54-7, Cevian N 9003-56-9, Acrylonitrile-butadiene-styrene copolymer 106107-54-4D, Butadiene-styrene block copolymer, <b>hydrogenated</b>				



L7 ANSWER 1 OF 2 CAPLUS COPYRIGHT 2002 ACS  
 AN 1992:409241 CAPLUS  
 DN 117:9241  
 TI Thermoplastic resin compositions containing propylene polymers and styrene polymers  
 IN Kawamura, Tetsuya; Fujita, Yuji; Yokoyama, Koichi; Yokomizo, Katsuyuki; Toki, Shigeyuki  
 PA Tonen Corp., Japan  
 SO Jpn. Kokai Tokkyo Koho, 7 pp.  
 CODEN: JKXXAF  
 DT Patent  
 LA Japanese  
 IC ICM C08L023-10  
 ICS C08L023-10; C08L025-04; C08L053-02  
 CC 37-6 (Plastics Manufacture and Processing)  
 FAN.CNT 1

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	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 04045140	A2	19920214	JP 1990-153422	19900612 <--
AB	The title compns. with good surface peeling resistance and mech. and impact strengths contain (A) 100 parts mixt. comprising 5-95% propylene polymers and 5-95% styrene polymers and (B) 1-40 parts styrene-ethylene/butylene-styrene block copolymer (I) contg. 5-95% ethylene/butylene unit with .gtoreq.40% butylene content. Thus, polypropylene 80, polystyrene 20, and I (wt.-av. mol. wt. 7.9 .times. 104, 34% polystyrene, 55% butylene in ethylene/butylene unit) 5 parts were melt kneaded and pelletized to obtain a compn. showing surface-peeling resistance (by cross-cut adhesion test) 90/100, elongation 51%, and notched Izod impact strength 3.4 kg/cm2.				
ST	polypropylene blend surface peel resistance; mech strength polypropylene blend polystyrene; impact strength polypropylene blend polystyrene				
IT	Impact-resistant materials (propylene polymer-styrene polymer blends contg. hydrogenated butadiene-styrene block copolymers as)				
IT	Plastics RL: USES (Uses) (propylene polymer-styrene polymer blends, compatibilizers for, hydrogenated butadiene-styrene block copolymers as)				
IT	106107-54-4D, Butadiene-styrene block copolymer, hydrogenated RL: USES (Uses) (compatibilizers, for propylene polymer-styrene polymer blends, for improved impact strength and surface peeling resistance)				
IT	100-42-5D, Styrene, polymers RL: USES (Uses) (high-impact, propylene polymer-hydrogenated butadiene-styrene block copolymer blends, with good impact strength and surface peeling resistance)				
IT	9003-53-6, Polystyrene RL: USES (Uses) (propylene polymer-hydrogenated butadiene-styrene block copolymer blends, with good impact strength and surface peeling resistance)				
IT	9003-07-0, Polypropylene 106565-43-9, Ethylene-propylene block copolymer RL: USES (Uses) (styrene polymer-hydrogenated butadiene-styrene block copolymer blends, with good impact strength and surface peeling resistance)				